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THE AMERICAN JOURNAL OF CLINICAL MEDICINE

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THE people who count are those who do things. No house-wrecker, who leveled aged structures and carted away their refuse, ever sheltered thereby a human being from the storm.

The leaders of men do things. They are positive, and no great work ever started from a negation. They draw men after them, excite their admiration, win their love, arouse them to action, imbue them with enthusiasm, with belief. The names of the men of action are inscribed on the tablets of history.

Be aggressive. Be strong. Make yourself known and felt as a power; and power is only known, as such, when in action. Nothing makes for a man's success like a good, hearty fight—strife to win. Friction, nothing else, polishes—brings out the "high-lights" of the stone, the metal and the man.

What to fight about? Is there a corner in the world where there are no wrongs to be righted, no needs to be fulfilled, no better work to be done?

Next month there will be a lively discussion, a fighting discussion, of Dr. Robinson's paper on "The Limitation of Offspring." Are you in on it? The August number will also contain a number of interesting papers on different phases of the typhoid-fever problem, and on disturbances, acute and chronic, of the alimentary canal. It's going to be a great number. Look out for it.

THE CLINIC PUBLISHING CO.
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The American Jr f Clinical Medicine

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DEVOTED TO ACCURACY, DEPENDABILI TY IN EVERY DEPARTMENT OF MEDICINE AND TO THE OF THE DOCTOR

GENE L STAFF:

W. C. ABBOTT A. S. BURDICK

E. M. ACHARD

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Fashion or Truth?

WHAT is one to do when he finds himself hopelessly out of *rapport* with the spirit of his times? The tide of professional thought and endeavor sets strongly in a direction of which he does not approve. Shall he allow himself to be swept into the current and be carried in the same general direction, seeking only to provide for his own interests and endeavoring to ride the waves instead of being submerged? Or shall he stand like a rock in the stream and deflect at least a portion into the better channel?

The trend of the medical movement is toward the specificity of disease, and to its treatment by means directed against each malady as a pathologic entity. The type of a remedy is antitoxin directed against diphtheria *per se;* applicable to every case, regardless of individual features, age, sex, race, symptoms, strength of patient, vehemence of attack, points of least resistance and greatest peril, environment, and accessory causes impelling toward malignancy and death.

The *treatment?* Over against the word "diphtheria" is set the other word, "antitoxin," and woe be to him who dares attempt to add aught thereto. Let his name be anathema. I have heard men in medical meetings demand that he who dares utter another word on treatment of diphtheria be refused a hearing! The truly scientific chap falls in line, and looks for therapeutic advance in serums, opsonins, salvarsans, and similar specifics.

I simply can not and will not fall in line. It is of very little moment to the world or the profession that any one individual should stand aside from the crowd and be neglected. It means a very great deal to the world, and more to the medical profession than to any other, that the man in whose mind is implanted the conviction of a truth should adhere to it. The freedom of humanity today is built on sturdy old Luther's declaration: "Here I stand, God help me, I can not do otherwise!"

The way of progress for us does not lie in the development of specifics for disease, but in the study of physiology, the detection of aberrations from physiologic function and their correction. Earlier, still earlier, we must learn to detect the beginnings of disease and the causes at work; to remove these and restore harmonious, equable activity to the organic functions. It is not the illustrious orator in the school, the skilled specialist, the daring wielder of bistoury and of scalpel, the accomplished manipulator of test-tube and reagent, of microscope and stain. It is *you,* YOU,

YOU, who must do this work; the Doctor, unlimited, the greatest of specialists, he whose specialty is the man himself, not any single organ or region or tissue or function.

The way to study and treat cases is to individualize them, not take them *en bloc*. The time to take cases is in the beginning, before irreparable damage has been done. The way to treat patients is to strike at the causes of disease, to remove these, the foundations, when the malady will fall of itself. This means individual study, early study, steady surveillance; and this again brings us to the noblest of our duties, the prevention of disease, and its arrest in its very incipiency.

Irresolution is a worse vice than rashness. He that shoots best may sometimes miss the mark; but he that shoots not at all can never hit it. Irresolution loosens all the joints of a state; like an ague, it shakes not this nor that limb, but all the body is at once in a fit. The irresolute man is lifted from one place to another; so hatcheth nothing, but addles all his actions.—Feltham.

ILLINOIS AND MEDICAL EDUCATION

A great deal has been said by a very few men about the deplorable condition of Chicago in the matter of medical education, and in the heat of this discussion The Illinois State Board of Health, which is our examining body, has been severely criticized.

We do not care to open the old discussion or to go over the ground again, but we would suggest that some of the captious critics, who have found in Illinois everything that is bad and in Baltimore and Boston practically everything that is good, should investigate some of the work which has been done right here in the State of Illinois for the advancement of medical education and the protection of the medical practician.

It is true that we have many colleges—too many. But this excessive educational activity, after all, is nothing but the outgrowth of the surpassing energy of the West, so strongly exemplified in the Chicago spirit. Incidentally, the weaker colleges are being weeded out or, what is even better, made stronger.

Not everyone knows that a Chicago institution—the old Chicago Medical College, now the medical department of Northwestern University, was really the pioneer in the new medical education. This was the first school in the country, we believe, to introduce the three-year course; it was one of the first to insist upon four years of study for the practice of medicine.

So, also, Illinois was one of the first states of the Union to insist that adequate qualification should be required from the men desiring to enter the profession of medicine. This state was one of the earliest to require an examination of candidates desiring to enter the profession. It was the pioneer in advocating reciprocity between the different state boards, this much-to-be-desired movement having been instituted largely by and owing much to the energy of the Secretary of the Board, Dr. James A. Egan.

The Illinois Board was also the pioneer in the matter of allowing credit points to a physician for a certain number of years in actual practice. Ten years ago candidates from any other state were required to pass exactly the same examination before the Illinois Board and to make exactly the same grades irrespective of whether they were just out of college or had been in the harness fifty years. This manifestly was unfair to the old practicians, hence the Illinois Board decided to allow a credit of one percent on the average rating for each year of *bona fide* practice since graduation. More than twenty states have, since then, followed the example of Illinois in thus giving the older practician the square deal.

The Illinois Board was also the pioneer in requiring a photograph as a means of identification of candidates. Probably a dozen states have followed this excellent example. Illinois is the only state that requires the physician by whom the candidate is introduced to certify to this photograph, which the applicant must have on his table before him throughout the examination. Numerous frauds have been perpetrated upon other boards by men who have hired substitutes to go through the examination for them.

Besides being the examining body for physicians, The Illinois State Board of Health is also the examining body for the embalmers. Furthermore, it is charged with the supervision of and enforcement of the health-laws of the State. The duties devolving upon it are enormous, and they have been met with marked ability, in spite of the lack of cooperation on the part of those who should support it at every point.

It is to be regretted that a small number of irresponsible self-advertising muckrakers should be able to secure a hearing in the public press, for their sensational and defamatory attack of this great official body that has done so much for the physicians of this State, and incidentally of all other states of the Union.

William Dean Howells, discussing realism at one of his Sunday afternoons in New York, let fall a neat epigram on hope.

"Hope," said the famous novelist, "is not, really, an angel in a diaphanous robe of white, but only the wisp of hay held before a donkey's nose to make him go."

WILL FASTING KILL PATHOGENIC MICROBES?

A curious controversy is being waged in the columns of *The Critic and Guide.* Upton Sinclair, of "Jungle" fame, declared that syphilis, gonorrhea, and malaria could be cured by fasting! Editor Robinson, in denying this assertion, promptly offered to put up $1000 against a similar sum, to put the matter to a critical test. Sinclair quite as promptly backed out, thereby demonstrating the depth (?) of his belief in the things he advocates.

All this is trite, the commonplace experience of every American who knows the game of bluff.

However, there is a deeper significance to the seemingly trivial incident mentioned. It indubitably furnishes evidence on the mental status of the laity as regards matters medical, and that deserves some closer consideration.

Let us assume that Mr. Upton Sinclair is, not so much his individual self, as the representative, the average man, of his class—the ordinarily educated and intelligent newspaper-man or *litterateur.* He would certainly claim to be that much, and undoubtedly rates himself much higher. He has succeeded in getting into the limelight and has a following. Many may have been impressed by his work and are ready to accept his dicta as possessing a certain measure of authority, or at least as deserving consideration. As such, he ventures into the department of a special calling, a profession held by men of particular education and training, and to these specially instructed men he delivers opinions concerning their affairs, with a force and self-confidence that carry weight with men of his own type as well as the vast masses of less qualified judgment.

Instances are not wanting where men of superlative genius have instructed specialists in the latters' special sphere; as, when Napoleon pointed out to Talma an error in that great actor's conception of a character he had represented. But Napoleons are rare, and Sinclair is not a Bonaparte. Besides, the views of an emperor at whose feet all Europe lies are apt to be accepted as law, if not as gospel.

To the physician, the absurdity of Mr. Sinclair's assertion verges on the grotesque. All three diseases are of parasitic nature, syphilis and malaria being due to animal organisms, and gonorrhea, to a coccus. That either could be in any manner affected by fasting is as likely as that pediculi capitis could be banished by that means. In fact, Dr. Robinson would do well to propose phthiriasis as a better malady in which to make the test, since the laity could judge of the results more readily than in dealing with microorganisms demonstrable only by the delicate methods of the biologic laboratory. Such a test surely would prove instructive to the rash Mr. Sinclair, and the easy gradation from a parasite visible to the naked eye to those that require the compound lens for their disclosure might result in an increase of his wisdom—also caution.

In every vocation of man there are to be found amateurs and professionals. Sometimes the former score off the latter; and then there is a howl of delight, for the crowd always sympathizes with its own and delights in going against the exclusive.

Very much more often, though, the amateur falls into error, making mistakes born of his own ignorance of the fundamental things everybody must learn who takes a regular course of instruction—but still the crowd sympathizes with him, because "he couldn't be expected to know." True, but this self-same amateur should have realized his own ignorance before he proceeded to interfere.

A costly machine may be ruined by an ignorant interferer—and there is little consolation to the owner to be told that the rash one's intentions were good. What piece of machinery is as complicated and delicate as the human body? Nevertheless the rule holds good here.

A Pennsylvanian took his daughter to a quack, who diagnosed "a cancer humor in the blood." To bring out the "humor," he applied a strong solution of corrosive sublimate to her skin. The result needs no description at our hands, but patient as well as quack saw in the angry appearance of the skin the confirmation of the diagnosis. Again the caustic was applied, and it bit deeply into the the tissues. A third application followed, and the girl died in the torments of the inferno, slowly burned to the bone.

At the trial the pretender to medical skill swore he really believed the destruction was the cancer humor coming out, and that he did not know the effects of the caustic he was applying; on which plea he was acquitted. The judge ruled that it was the father's duty to satisfy himself of a doctor's qualifications before entrusting his child to him; and that, when so accepted, if the doctor did his best so far as his knowledge and skill went, no more could be expected. The deception due to his claim of skill he did not possess seemed to be out of consideration.

This shocking catastrophe is by no means a solitary example of its kind; every community could furnish others, some quite as bad or worse.

There was that case of the man with the anchylosed knees. The doctors had refused to make any attempt to straighten the crooked legs, but there was in the vicinity one of those "natural geniuses" to whom such matters "come easily", and this fellow undertook to accomplish the cure. Finding the victim's limbs resisting his utmost strength, the man applied his homely, everyday common sense to the problem in a way that commended itself to all present. He had the barn-door taken off its hinges and brought to the sick-room, laid the patient on the floor, put the door on top of him, and the "doctor," with two others, got on the door and "tramped"! Yes, and they actually straightened the crooked legs, so that three days later the man fitted into an ordinary-shaped coffin without any difficulty whatever.

Of a piece with this was an incident related not long ago in a drug journal. A woman applied for treatment, saying her child had swallowed some foreign body. The clerk replied that he did not know what to recommend, and she turned to leave; when another clerk, who, the journal remarked exultantly, was *a salesman,* stepped forward and advised a bottle of magnesium citrate. The sale was made, and the clerk was commended for his astuteness.

Neither the druggist nor the editor in this case seemed to have a glimmering suspicion that the patient's life was imperiled by thus liquefying the stools that otherwise might have enveloped the foreign body and conducted it harmlessly through the intestinal tract. Had death followed, the clerk might have truthfully plead that, as he was not a doctor, he should not be expected to know the danger following his treatment. The public would generally have accepted this plea and the court sustained it; although to us it seems that, since the woman applied for advice on the assumption that the clerk was qualified to give it and the latter accepted that assumption and gave the advice that resulted in death, both moral and legal responsibility should attack.

To impersonate an officer is sure to be followed by penalties if trouble results and the impersonator is caught. Is it less reprehensible to impersonate a doctor?

The remedy is the education of the people by ourselves. It does not take long to convince men that a costly watch should not be handed over to "just anyone" to tinker,

at, but must be entrusted only to an expert, known to be such.

If each of us were to do his individual part of this general duty, we should soon find the public realizing that there are experts in detecting and remedying defects in the working of the human machinery. We should hear less of dormant hipjoint disease aroused to activity by imprudent "osteopathy"; of children dying of easily curable disease because their parents were "science"; of people passing along to the incurable stages of maladies because they were exhorted to "forget it" when the first warnings of nature were given; of women's lives wrecked because the husband-to-be had entrusted the treatment of his gonorrhea to the corner druggist; or of the innumerable instances where neglect and ignorance aid the enemies of human life.

It's our own fault that these things are so—why not change them?

"There are two classes of people who through their calling work habitually against each other: the first are the cooks, who work toward the production of disease; the second are the physicians, who strain every effort for the cure of disease."—Tissot.

CONSISTENCY, THOU ART A JEWEL!

JEWEL NO. 3

Every once in a while we get a letter something like this:

"DEAR DOCTOR ABBOTT: I have been a subscriber to your journal for almost fifteen years, and I have always admired your independence, your fearlessness and your fairness. I stood with you when you put up that big fight a few years ago, and wrote you privately to that effect at the time. I use some of the 'alkaloids' in my practice, and have occasionally contributed to THE CLINIC. But I am through! Last month you had an article on "The Etiologic Relationship of Pumpernickel and Pip," by Dr. Septimus Sextus, M. D., of Pumphreyville. I know Dr. Sextus, and I know that he is physically bow-legged and cross-eyed, morally perverse and mentally twisted. His article is twaddle, an insult to every self-respecting home. I am surprised that you should publish in your previously excellent journal anything that goes so decidedly counter to all the opinions of the best authorities. Take my name off your list at once. I beg to remain, sir,

Indignantly yours,

OCTAVUS DIXIT, M. D., PH. D."

There are many men who admire you as long as you agree with them, but who are intolerant of anyone who sees things in a different way from what they do. Such men often talk loudly of freedom of thought and the glories of an untrammeled press, but give them a free hand, and a Servetus would be burned or a Priestley stoned in every hamlet of the Nation. Do you know Dr. Dixit?

O, Lord, give us courage this day to ask for a profit on our work.—"Ben Franklin Messenger."

"EVERYBODY"

The readers of CLINICAL MEDICINE constitute a great big family, and undoubtedly one reason for its popularity is that every individual in this "family" feels a personal interest in every other member. We talk things over in these pages without restraint, in a most "heart-to-heart" sort of way, and if anything appears in the journal's pages which interests us very much, some one is pretty sure to write to the author and tell him about it. It is a frequent occurrence that we hear from those who have contributed that they have received hundreds of letters as a result of one short article. That's right. This is exactly what every one of us who writes needs to keep us "up to the mark."

So, if we see anything in THE CLINIC that we like, or that we do not like, let's write and tell the author just how we feel about it. Won't you all do so? There is nothing that cheers a man more, when he has labored hard to bring his ideas to the attention of others, than to feel that his work is appreciated. Of course, every man Jack of us wants praise, but we—most of us—would far rather be criticized than have no attention paid to us at all.

So I hope that every time *you* go through the pages of this journal you will mark carefully the things that you approve or disapprove, and then write the "culprits"

and tell them just exactly how you feel about their articles.

The same as to the advertisers. We could not get out CLINICAL MEDICINE for twice the money it costs you if it were not for the support afforded by the income from the advertising pages. And, do you know, those same pages are of immeasurable importance to all of us. They constitute the current record of all that is new and best on the commercial side of medicine and the allied industries of interest to physicians.

The man engaged in business who does not read the advertising pages is going to become a back number; in fact, I believe that in a large number of the current periodicals published the advertising section is the most valuable part. Anyhow, scan these pages of THE CLINIC closely, and if you see anything there which interests you or about which you believe you ought to have more knowledge, sit down at once and write the advertiser and ask him to give you the information desired. It will pay you.

Take our advice, and you will simply be surprised and astounded at the amount of helpfulness you will get out of such correspondence, both with the professional brethren in the field who are writing and with the commercial men who are also working for your benefit in making and selling things they believe you ought to possess.

It would be a good plan for you to go through this journal every month with pencil in hand, marking this point here and that argument there, making note of this advertiser's name and of that man's product. If you do this and write these people, it will not be long before you will build up a correspondence that will not only be personal and friendly in character, but of immense educational value. Try it, by all means!

WHY THE NIHILIST?

It does not seem surprising to us that there are therapeutic nihilists. It would be amazing if there were none.

The nihilist is generally a man with brains. When he does something he wants to see some result of his efforts. He is the original "man from Missouri." If he has given tincture of aconite repeatedly and there has been no pharmacologic response; if he has been time and again equally unfortunate with digitalis, with belladonna, hyoscyamus, and other medicinal preparations, he certainly has good excuse for becoming a nihilist. If he has failed absolutely, unquestionably, with these remedies, which are "official," which have the stamp of authority, and possibly are furnished on his prescriptions as "standardized"; if in spite of all he can do they fail to produce the expected remedial results, what can he conclude but that the whole materia medica is useless—yes, and dangerous?

It is the do-nothing drug which makes the do-nothing doctor. Therapeutic nihilism is the legitimate offspring of the galenic system.

The factors of uncertainty, of variability in the quantity and proportions of the proximate principles, of decomposition due to age, heat and climatic conditions, and of "natural" polypharmacy, are constantly present in these preparations, which accordingly are never twice alike and rarely give identical results. How could a carpenter build a house if he depended on a foot-rule which was 13 inches long today and only 3 inches long tomorrow? How can a physician secure success with a drug which is too strong today, tomorrow absolutely inert?

The men who employ the alkaloidal and active-principle remedies, which are uniform in dose, always potent, always capable of producing effect, do not question the utility of drugs. These men do not guess at drug action, they know, and knowing, they achieve success.

Where the nihilist makes his mistake is in closing his eyes to everything except his own failures. Strong men are the most prone to conclude that because they have fallen short of success, every other man must do the same. As Prof. Reynold Webb Wilcox says: "The nihilist impedes progress by his captious criticisms of methods which do not appeal to his limited understanding and imformation, and by the

loud asseverations based upon his own failures."

The therapeutic nihilist is an intense man, a man who has learned to concentrate his efforts upon his own field, too often a narrow one. He should learn to broaden out, to look beyond his limited understanding into the experiences of others, and there seek the secrets of mastery.

We venture this prediction, that when the masterly analytic and constructive minds of some of our great "nihilists" are concentrated upon the possibilities of active-principle medication, this foolish talk about the slight value of drugs will cease to come from within the medical profession. The reform is at our very doors. When the nihilist becomes sufficiently imbued with the spirit of progress to turn aside from his "captious criticisms" and really begins to study and work with us for the betterment of therapeutics, abandoning the outlived and the outworn, he will become an enthusiast, an optimist, and most important of all, a better doctor.

No, we don't blame the nihilist—except for clinging to antiquity, for tying his efforts to paleozoic pharmacy. But we do wish that he might awake from this sleep of the centuries—awake to the possibilities of this wonderful twentieth century.

Cheer up! Look forward! Boost! Do these and you can speedily put Cosmos on your pay-roll.

THE NEW HEALTH COMMISSIONER FOR CHICAGO

In view of the peculiar local complications, political and otherwise, confronting Mayor Harrison, the appointment of Dr. George B. Young as Health Commissioner of Chicago strikes us as an excellent solution of the problem, and as one which could not have been improved upon.

The fact that Mayor Harrison has gone to the U. S. Public-Health and Marine-Hospital Service for a man to fill this highly important position is not only a well-merited compliment to the Service, but it is also an exceedingly wise move in the interest of a city of the importance of Chicago, because the personnel of the U. S. Medical Service consists of the most highly trained and efficient sanitarians in the world. It is not in a spirit of boasting that this assertion is made, but a simple statement of a well-known fact when we claim that the physicians connected with the U. S. Public Health and Marine Hospital Service yield to none in their scientific and practical attainments.

Another fortunate feature in the selection of Dr. Young as Health Commissioner is that it has taken the position out of the field of political wire-pulling, out of politics altogether—and this is as it should be. The head of the Chicago Health office should be selected entirely for his scientific attainments and his knowledge in matters sanitary and hygienic, for his efficiency in dealing with the large problems that are submitted to his decision, and the service should not be jeoparded by any consideration of political pull or political gratitude.

We heartily congratulate Chicago on her new Health Commissioner; we congratulate Mayor Harrison on the wisdom of his selection, and Dr. Young on his appointment. We also congratulate the U. S. Public-Health and Marine-Hospital Service on this acknowledgment of its high standing.

CHICAGO MEDICAL SCHOOLS

"Thirteen medical schools in Chicago have no moral nor legal right to teach medicine." This was the startling statement made in the report of the Committee on Medical Education of the Illinois State Medical Society, as read by Dr. J. F. Percy of Galesburg. This statement was not allowed to go unquestioned, and the whole report, which was full of sensational charges against Chicago schools and Chicago physicians, received the unanimous opposition of the delegation from this city, and was killed.

The schools which are assaulted assert that the "investigation" made by members of the committee was cursory and incomplete, characterized by no judicial attitude, but rather by unfriendliness from the beginning, and a desire to "make a case."

While Clinical Medicine does not intend to enter the lists in defense of any of these institutions, it does seem significant that the wonderful improvement in teaching facilities and material equipment as well as in the personnel of the instructors in these Chicago institutions receive no word of commendation from the committee. We are proud of great institutions like Rush, Northwestern, and the College of Physicians and Surgeons, but we are also gratified with the progress made by other schools. Every one of the institutions attacked is superior, in almost every respect, to the Rush College of ten or twenty years ago, of which some of us are proud to be graduates. We should encourage them to keep on growing better.

In our opinion, the cause of better medical education in this city is not advanced by attacking the characters, or questioning the motives of the profession in Chicago, or that part of it engaged in medical instruction. Any man who knows local conditions can tell you that some of the brightest minds of this country are connected with the colleges which Percy and his associates have gone out of the way to assail. An assault by men of his caliber upon The Chicago College of Medicine and Surgery, Bennett Medical College, and Hahnemann Medical College, including in this assault aspersions upon the student body, the faculty and every one associated with them, is a blatant example of medical Phariseeism and bad taste.

A man who dares waste an hour of time has not learned the value of life.—Charles Darwin.

ALL MEN EQUAL?

How true is it? According to the constitution of the United States, every man in the world is born free and equal. Since the days of the French Revolution this grand generalization has been accepted as truth itself. In America it is true *de jure* but not *de facto*. Politically, it is perhaps true in the fact that to every individual is guaranteed, by the laws of the land, equal rights, and he gets these provided he is wise enough and strong enough; but anthropoligically, the truth is nearer the opposite, that is to say, that no two individuals are born with equal possibilities.

Woods Hutchinson has recently said that all are born equal, and that the difference in men is simply one of training or environment; but, then, we all know Woods, and how dearly he loves to say things.

No educator who ever endeavored to study the pupils under his care would for a moment admit even a close similarity in their mental endowments. Those who have studied this question most discriminatingly are almost unanimous in the assertion that between the various races of men there is a radical difference, and that, whereas a certain education is a possibility to the Caucasian, it does not by any means follow that the same education is a possibility to members of other races without a mixture of Caucasian blood.

Some of us know that to us music is an unlearned thing. To the scion of a line of learned forefathers the acquisition of book-lore comes like the recollection of forgotten knowledge. To others the same task is a demand upon neurons unpossessed of inherited aptness for such work. Note the helpless way with which such persons gaze at the problems which to the inheritor of learning seem so easy, and then say there is nothing in the heredity of brain culture.

It takes keen observation, sometimes, to discriminate between the leader, the advanced thinker, and the beneficent iconoclast, and the poseur. Some men are unfortunate in having once said something worth while and henceforth feel they must work to sustain their reputation as—

> ". . . . . a mighty wit,
> Upon the strength of some chance hit,
> Among a thousand flippancies."

Smartly turned phrases, apt epigrams, iconoclastic attacks upon universally accepted axioms or beliefs serve to bring the perpetrator into the limelight but are never just, rarely true; never legally so in the sense of being the truth, the whole truth and nothing but the truth. Hence they never give an exact veracious idea of the subject, yet they are universally accepted as doing that very thing.

No two men are alike or anything nearly equal in mental gifts or capacities. There are innumerable stopping places along the mountain-sides, and each is tenanted by a single individual. It may be that each *could* have risen, but, certainly, he didn't. What is—is, and has reason behind it. We can only reason safely from actualities; beyond lies the region of conjecture.

With many persons, their greatest fault is their inability to estimate values. The best wisdom is to know what is worth while and what is not.—Frank Crane.

SNOBS AND REAL PEOPLE

Always ride in a Pullman, do you? Just a bit proud of it? Like to plume yourself on being somebody, not one of the common class?

Coming east from the Pacific Coast once, I took a tourist sleeper; primarily because I felt I had more urgent use for the seven dollars than George M. Pullman had. You know what you get in the "standard" sleeper—a lot of folk who look as if they were afraid you were going to speak to them. You read, doze, look at scenery till it palls on you, play (or think) solitaire, look at your watch to see how long till next mealtime—not that you are hungry but as a welcome respite from the monotony—or you go into the smoking department and listen to the drummers' stories, if you still retain any tolerance for that sort of thing.

In the tourist was another class of people: men who had established homes and were going back for wife and family, young folk coming east to school, returning soldiers from the Philippines, men who had been west to see and invest, and so on. These people were so neighborly! Mealtime came, and the woman who makes coffee brings you a cup. Lunch-baskets replace the dining car, and the contents are shared. Talk is animated, everybody seems to have something to say in which the others are interested, and you learn a whole lot at first hand that is not as the magazines tell.

This is the Real Thing, and these are the real people. How nice they are—and smart! Hard workers, shrewd planners, with a world of good sense and energy. And others feel this, too. Before the trip is half over a dozen of the Pullman folks are spending the best part of the day with us—and when they thaw out they're not so bad either. They, too, turn out to be like the rest of us—just folks. Even the insufferable prig who corrected a stranger's pronunciation turned out better than one would have expected and made you realize that he might have been fairly human if he had been caught when he was young.

I left the train feeling that I had never enjoyed a trip so much, or found one as instructive. Probably this acknowledges the writer's origin and station—just *hoi polloi*—at least he hopes so.

But, my fastidious friend, before you assert that you "never travel except in a Pullman" ask yourself whether you do this because you really prefer the conditions there or because you feel it necessary to keep good your hold on "society"? And if you really plume yourself on associating with the possible social magnates as represented by the special Pullman crowd, do they feel as proud of you?

What rot!

> "A thing for laughter, fleers, and jeers,
> Is American gentility."

Same with doctors. Get hold of a good, solid old country practician who has been in the work twenty years and get him talking; and if you *can* learn, he'll teach you something worth while.

It is not the size of the dog in the fight that counts, but the fight in the dog that wins.—A. G. Lewis.

IPECAC IN DYSENTERY

In *The Bulletin of the Manila Medical Society* for March, 1911, Captain Vedder discusses the value of ipecac in the treatment of dysentery. Much contradiction has ensued over this remedy, Manson and others lauding it, and Shiga condemning it unreservedly. This discrepancy is common enough, of course, and explicable when the cruder drug preparations are under consideration.

Dr. Vedder's first experiments were with agar cultures impregnated with ipecac. With Shiga's, Flexner's, and Morgan's

No. 1 bacilli, also with bacillus typhosus and bacillus paratyphosus, the 2-percent ipecac agars showed less growth than did the corresponding controls. With staphylococcus aureus, the growth was the same as that of the control. Digitalis, hydrastis, and opium, in 2-percent strength, were substituted for the ipecac, and each one gave good results, the first-named inhibiting the Morgan and Shiga bacilli completely, as hydrastis did that of Shiga.

The results were more decided when bouillon was employed: the controls developed innumerable colonies, while the ipecac-tubes showed none, excepting one lone colony of staphylococcus and three of paratyphosus. In the case of the three other agents, similar results followed, except that the Flexner bacillus was not checked by the digitalis or the opium and showed one colony with hydrastis, and that the Morgan bacillus gave innumerable colonies with opium.

The conclusions were: that 2 percent of ipecac inhibits the growth of the dysentery bacilli; the action is not specific, since other drugs do the same; the Shiga bacillus is more susceptible than the Flexner strain. The ipecac treatment, therefore, is not recommended.

Experiments on the amebas showed that ipecac is much more effective, as these were killed by a fluid extract in a dilution of 1 in 50,000, and sometimes in one of 1 in 200,000. Another brand of extract failed, but was found to be deficient in alkaloidal content.

Emetine proved amebicide in dilutions of 1 in 100,000, which was double the effectiveness of that of the best fluid extract of ipecac. The effect was attributed to this alkaloid alone and none to cephaeline, since the total alkaloidal strength did not affect the results, as did the strength of emetine alone.

This fact explains why the Rio ipecac has given the best results in practice, for in it emetine predominates, cephaeline being the principal alkaloid in the Carthagena variety. The remaining elements of the root were left in the deemetized ipecac tested, and this failed; so these can not be credited with curative influence.

Quinine proved effective in the test tubes in a dilution of 1 in 20,000, but failed in higher dilution. Silver nitrate succeeded in dilutions of 1 in 300,000, but this loses much strength when in contact with albuminous substances and with certain salts, leaving little of it to reach the upper colon.

Ipecac, given by the mouth, may reach all parts of the intestine. Emetine may also act after being absorbed and eliminated into the intestine, penetrating the deeper layers beyond the reach of local applications. While in the blood, emetine may even destroy amebas in the liver; which may explain Rogers' good results in treating hepatic abscesses with ipecac. One form of dysentery is caused by the balantidium coli. Ipecac killed a species of paramecium and a balantidium isolated from tap-water, as did emetine in a 1 in 100,000 dilution. Duncan reported a case of balantidium dysentery promptly cured by ipecac. Further trials of ipecac in this form are suggested.

Dr. Vedder concludes by recommending the treatment of ameboid dysenteries by ipecac, making sure that the due amount of emetine is present, and if this can not be proved by actual analysis, to insist upon the Rio ipecac. Whether we do get that is problematical, in view of the pharmacopeial authorization of the cheaper Carthagena variety.

An optimist is a fellow who will sit up at night to make lemonade out of the lemons handed him through the day.—W. E. Mason.

ARE WE "CALOMEL" DOCTORS?

A correspondent calls our attention to the frequency with which calomel is recommended in these pages, asserting that it has become a routine practice with us, and that we are getting to be calomel doctors. Are we, really?

That calomel was anciently abused nobody can doubt who reads the works on practice of a half century ago. Then physicians prescribed calomel until so many pints or quarts of saliva had been obtained as the measure of depletion. But since we have been in the profession, now more than forty years, we have never

seen or known or heard of a death from mercury. Have you? We have witnessed, and even caused, some instances of salivation, but in not a solitary case has it proceeded to the loss of a tooth or any other mutilation or permanent injury. Do you know of any such harm having been worked by this potent drug? Fifty thousand doctors read this issue of CLINICAL MEDICINE. Let every one who knows of such a case tell of it, and we will give the dread statistics in a subsequent number.

This is a day of broad sunlight. Prejudice and bigotry have no place with us. We want the truth. If you charge calomel with crimes or misdemeanors, bring up your evidence and let the culprit be tried at the bar of reason and adjudged in accordance with the testimony.

Looking over our files, we find that our correspondent is right in that we are in the routine habit of commencing treatment with calomel or podophyllin, or both, followed by a laxative saline. "There's a reason." Most patients are carrying about in their bellies a load of rotten feces, absorbing its decomposition products, and rational treatment begins with getting rid of this poisonous truck. It is preposterous to try to stimulate the eliminative glands until this load has been removed; or to give disinfectants before cleaning out the stables. The presence of this fecal accumulation is so universal a condition that the remedy likewise must be universal. Personally we have employed the method thousands of times, and never have known harm to result, and only very rarely has good failed to follow.

This is the distinct and comprehensive reason for our use of calomel, and a totally different thing from its ancient use as an antiphlogistic. As to the latter, its value, when properly employed, has never been disproved; but we live in the present and have neither time nor inclination to squabble over a dead issue.

This use of calomel as a means of emptying the bowels is the routine application of a general principle. Of course there are other cholagogs, and if one prefers juglandin, jalapin, or any other cathartic, there are no reasons why he should not utilize them. But the fact that nearly everybody prefers calomel is significant. It is not our precept, nor mere custom; if the drug did not give satisfaction some other would soon be substituted. Saline laxatives are not used to prevent calomel poisoning, but to complete the work of the mercury; to sweep out what the calomel has loosened. Wunderlich noted that his cases of typhoid fever, in which calomel had been administered at the beginning, did better than those in which no calomel had been given; and a similar experience, not consciously noted perhaps, has undoubtedly led to the preference for this drug as an initial measure in this disease and in many others.

What has been your experience, respected reader?

Life, my brethren, am mostly made up of prayin' for rain an' den wishin' 'twould cl'ar off.

A RATIONAL VIEW OF THE DISPENSING QUESTION

In pleasing contrast with the view taken by some other druggists' journals, that all doctors should be forbidden by law to dispense their own remedies, is the position of *The Druggists Circular*. In one of its recent issues it comments upon the letters of two gentlemen who are sure that the dispensing business is a menace to the public (and to *them*), and that doctors ought to quit self-dispensing or quit practising. In reply to the first communication on this subject the editor of *The Circular* says:

"Physicians can get along fairly well without the aid of pharmacists, and from all accounts some of them are doing so. If pharmacists think they can get along better without the physicians' trade and cooperation they should do what our friend, the writer of the above letter, is doing—abuse the doctors. If, on the other hand, pharmacists believe it would be to their advantage to keep on good terms with physicians, there is a way for them to do that, too, and a very simple way—prove worthy of the physicians' friendship and confidence."

Every word of that we can endorse. It's good sense and clean ethics. Even more pertinent is the editor's comment upon

the letter of the second writer, in which he says:

"In a recent issue of the *New York Times* appeared the following editorial note: 'Three thousand barbers have combined to demand the suppression of the safety razor by legislation. Do not laugh at them. They are following a long-established American precedent. They, too, have acquired the appetite for legislation. The safety razor hurts their trade, and the government must intervene."

If the advice given by the editor of *The Circular* could be taken earnestly to heart by pharmacists everywhere, they would not find it necessary to call for the aid of a law, essentially as absurd as the one the barbers want, to bolster up a waning business. Not only is it foolish to agitate for the passage of such measures, but it is poor business policy, as pushing the professions apart instead of drawing them closer together. We believe that the doctor should keep on good terms with the druggist, employing his services wherever he can advantageously do so; and we also believe that the druggist will find it to his financial betterment if he cultivates the physician and tries to serve him better along the lines of least resistance. That old saying about "driving a horse to water" is just as true today as it ever was.

LODGE PRACTICE IN BELGIUM

For many years physicians in Germany and other countries have made strenuous attempts to be relieved from the foolish and demoralizing obligations which they had entered into when the sick-benefit societies were first called into existence.

In our own country, we have, for years, had similar abuses to deal with. Sick-benefit societies, lodges, and similar organizations enter into a contract with their examining physicians to pay them a certain fee, say, a dollar per year for each member, for which the physician is obliged to attend to the members, in case they fall ill, free of charge. It stands to reason that such a remuneration is absurdly inadequate, and lodge-doctors are apt to give services far in excess of the fees received.

The only possible excuse for any physician to accept such a humiliating and lowering honorarium is that the money paid is reasonably safe and is, at least in the case of large lodges, a considerable sum paid at a certain time. Unfortunately in only few instances can the general practician count on definite times when he shall receive money, since his patients are apt to forget conveniently that they owe their doctor, and if they do pay, try to impress him with their benevolence in paying him at all.

A correspondent of *The British Medical Journal* for April 15 describes the struggle of the Antwerp Medical Society (Cercle Médicale) against the exploitation of the clubs (lodges) which has resulted in great success against the most determined opposition.

One of the points insisted on by the Cercle Médicale has been payment per attendance according to a fixed scale of fees. This was resolutely opposed by the clubs and various workmen's organizations and sickness-insurance societies, but owing to the solidarity of the profession in Antwerp, several of these clubs have been unable to obtain any medical officer, and they are gradually beginning to see the fatality of opposing the profession which is united to defend its rights.

Chief among the laws adopted by the Cercle Médicale to bind its members together is a form of agreement which every medical man signs on joining the Society, and the success of the Antwerp union, which comprises almost the whole of the practicians of the district, has led the profession in other parts of Belgium to imitate this organization.

We fancy that the success of the Antwerp physicians was in a great measure made possible by the fact that they made themselves liable, over their signatures, to severe monetary penalties in case they should not live up to the agreement and to the rules of the Cercle Médicale. They obliged themselves, for instance, to enforce an increase of fees up to the tariff adopted. They agreed to pay an indemnity or fine of 500 francs if they accepted any vacant post in a sick-benefit society without the written permission of the union, and made

themselves liable to other penalties if they did not obey the decision of the majority of the members. While such a proceeding, although voluntarily assumed, may be irksome and may appear to interfere with the personal liberty of the individual, it was nevertheless unavoidable in order to enable the medical society as a whole to fight and to come out victorious in the struggle for existence.

The position of the medical profession in Antwerp today shows that physicians everywhere can improve their financial standing, which is absurdly low in our own country at the present time; and from such a proceeding it would inevitably follow that the medical profession would regain some of its lost prestige, lost through its own fault and carelessness. If, under this arrangement, some of the weaker members were to drop out because they could not stand the strain, that would simply be in the line of the survival of the fittest. It is not much use to talk about, it is necessary to act, and if associations of physicians will stick together and oblige other members to live up to the agreement and to the decisions of the society much good will result.

ORTHODOXY

"The really correct practice is *our* practice. It is difficult to comprehend how the other doctors can be so blind as not to see this the way we do. Now, there is and can be but one way to treat appendicitis."

"Certainly," breaks in the Surgeon, "the only remedy is the knife."

"But first test the accommodation," says the Eye-Man, "I could tell you of a most remarkable case——"

"Cut it out," roars the Gyn-Man, "all appendicites come from the pelvic viscera and are curable by a gyne——"

"Never mind that," cries the Nervy One, "as the brain presides over the whole body, and the appendix has a hole in it——"

"Go to," yells the Proctologist, "no sane man now dreams of any other treatment than dilating the sphincter."

"Nasal reflexes—" shouts Nosey—

"Inverted scabies——" howls Skinny—

"Pockets and papillæ——" shrieks the Rectal Chap——

"Why not cure it?" mildly suggested the Internist. Whereupon they all turned on him and rent him asunder.

INFANCY, AND THE NEWER THERAPEUTICS

The future of medicine lies in the more careful and thorough study of physiologic phenomena. Every disease begins with a disorder of function, and as long as the difficulty is strictly functional, it is amenable to curative treatment in a way that is not possible when material lesions have been inflicted. Progress, therefore, lies in the ability to detect disorders at a still-earlier stage of their course and to apply the right remedy when there is yet a possibility of preventing material lesions.

This ability to detect disease early often has been so far above the capacity of the profession that there has been a disposition to sneer at studies of "simply functional maladies," as if these were unworthy of serious consideration. The term functional has been held as almost synonymous with hysterical. But that day, fortunately, is past. No longer is organic chemistry looked upon as a jungle into which no wise man will venture, such "wise men" rather choosing to follow the beaten paths of chemical knowledge, studying the definite metallic salts alone. As it is, we have made so many advances in physiology that they have rendered our former drug studies obsolete and reinvestigation of body processes on modern lines has become imperative.

One of the most fruitful fields for investigation is the study of the infant. Not one human being has an absolutely mathematically perfect eye, says the ophthalmologist. Not one of us was born exactly equilibrated and normal. Not one of us but has imperfections of frame, deficiencies of functional power, disequilibriums that mar the symmetry of our bodies and the harmonious workings of our organisms. These are most advantageously studied in early life, before they have been outgrown, or rather obscured, by complemental developments. Happy is he who has been

thus studied by a medical man, who has thus possessed himself of the key to his future maladies.

In these studies of infantile phenomena none is more interesting or important than that of the vasomotor apparatus. There is often a congenital disequilibrium that sometimes is startling in its manifestations. It is always of moment. One child will show perturbations of wide range from causes that may not affect any other of a large number of its fellows. There is meaning to a pulse of 100 in one that will not apply to a pulse of 120 in another. The pulse tension denotes more than fever, toxemia or temper, at times.

The best student here is the mother. Every prospective mother should have a training in medical science to fit her for her duties and opportunities. She is apt and willing, most anxious and quick to learn. Let her education be a part of the duty of the family physician, who should prescribe the books and elucidate their obscurities to her. She will see far more than he, and give warning in advance that will render many a perilous attack abortive.

Many advances in the management of children have been made by such studies. We do not now allow a child to drift into chorea before sending for the doctor to cure him, but when it commences to attract attention by grimacing, we have its eyes examined and correct the accommodation with glasses. We do not allow a boy to fall hopelessly behind at school for lack of attention to the obstructing adenoids and tonsils. Nor do we sit idly by and permit bad sexual habits to be aroused by the neglect of circumcision when that is indicated. Every intelligent mother now knows how much temper, nervousness and general naughtiness are due to digestive derangements, and many physicians are beginning to realize this. In time we may possibly learn to estimate correctly our children's intellectual capabilities and to gauge the extent and rapidity with which they can absorb and assimilate instruction.

The introduction of lecithin by Danilewski and its application by Cotton to certain forms of maldevelopment have opened up a line for useful observation that may prove fruitful. How many other forms of imperfect growth may this remedy reach? Who can tell its limitations and possibilities, until it has been tried out in all promising directions? Add it to the well-established methods of developing the backward intellect and the unsymmetrical frame, and we may have in this curious remedy a most valuable aid.

Whenever we begin to consider the directions in which the most promising paths for advance are opened, we come back to that ideal relation of the physician with the community which we have heretofore advocated. It is during health, and not after illness has occurred, that our best work may be done. Prevention is our duty, and the future doctor will be a director during life, not a mere doser during sickness.

THE DRINK PROBLEM

Among the many excellent papers read at the last meeting of The Illinois State Medical Society, none was more favorably received than that of Dr. Charles B. Johnson of Champaign, upon "The Health Conscience and the Drink Problem." In this paper the author reviewed in detail the terrible devastation wrought by alcohol, telling of its influence upon the individual and collective health, of how it produces a predisposition to disease, of its alliance with immorality, and how it is undermining the very foundations of society.

While some of the statistics given by Dr. Johnson may be questioned, yet his general conclusions are irrefutable. It is certainly a gratifying index of the change of opinion concerning this problem that his deductions were practically accepted unquestioned, and his presentation received with an enthusiasm accorded to no other article read at this meeting of the society.

Instead of these attacks and counter-attacks, this hot strife for personal ascendency, the strong men of our organizations might far better concentrate their efforts upon the solution of the great medico-economic problems, such as that of alcohol and the social evil. Are they afraid to tackle something big?

The Limitation of Offspring

The Most Important Immediate Step for the Betterment of the Human Race, From an Economic and Eugenic Standpoint

By WILLIAM J. ROBINSON, M. D., New York

President of the American Society of Medical Sociology; Editor of The Critic and Guide, The Medical Review of Reviews, The American Journal of Urology; Author of "Never Told Tales," etc.

EDITORIAL NOTE.—This is the address read before The American Society of Medical Sociology, March 4, 1911, by its president. As we have said editorially, it is "probably the most startling, the most revolutionary paper that has appeared in these pages." It is expected that there will be a storm of opposition, of counter-criticism. Send it in. We do not publish Dr. Robinson's paper because we agree with him, for we do not—at least in many particulars. We publish it because he has opened up a big question, a tremendous question, one which deserves thought and investigation, and which we can only solve, in the right way, by getting at it from every point of view, every angle. What do you think? Is Dr. Robinson right, or is he wrong? Has he found a real solution to a great social problem, or can the desired end be better accomplished in other ways? The columns of CLINICAL MEDICINE *are open for reply; only be brief, for many will doubtless wish to be heard.*

II

The Benefits That This Knowledge Would Confer Upon Mankind

We will now go over to the positive side and see what the universal knowledge of the prevention of conception will do for mankind. If you have given the matter but little thought, you will be astonished at the tremendous benefits which such knowledge is capable of conferring upon the human race. You will be amazed and grieved—as you should be—that this momentous question, this question of the most vital importance—has until now received practically no consideration at the hands of the medical profession, or in the pages of the medical press.

One of the most serious problems that confronts us today is the constantly growing number of bachelors, and the more and more advancing age at which marriages take place. For many reasons, this is to be considered a serious evil. Late marriage on the part of the man often means burned-out passions, exhausted vitality, impaired or destroyed sexual power, and very frequently it also means half-cured or latent venereal disease. The result for the woman is humiliation, suffering and often life-long misery and premature death, while for the progeny it means physical and mental disease, or at least a lowered vitality and a diminished resistance. In short, for the race as a whole it spells: degeneration.

But what is the chief cause of our late marriages? Investigate, and you will find that the chief cause is the fear of having children, of having too many children,

of having them too soon. You will find that it isn't the fear of supporting a wife—for two often can live as cheaply as one, and if the wife is a good one, even cheaper—but it is the fear of the children, whose possible number is indefinite. It is not the fear of supporting two, it is the fear of the possible ten. The universal dissemination of the knowledge of contraception would have a wonderful effect in this respect. Let us see:

1. Such knowledge would induce many men to get married much earlier than they otherwise would, and it would decidedly diminish the number of bachelors and of old maids; and this would have a decided effect on the diminution of prostitution and, consequently, on venereal disease.

2. Numberless women exhaust their vitality and become chronically invalided by too frequent child-bearing and lactation. Prevention would obviate this evil.

3. Numberless women are today chronic invalids on account of employing improper means of prevention. Freedom to discuss this question would put the proper means into the hands of married women and this evil would be obviated.

4. Numberless women have killed themselves, have been killed, have been driven into premature graves by abortions or attempts at abortion. This is a terrible evil. *And whenever I hear of a case of a woman dying from an abortion, I blame not the woman, I blame society or the State,* and I feel like sending those responsible for our brutal laws concerning the prevention of conception to the whipping post. Prevention would obviate this terrible evil, this terrible crime which society commits against the female sex.

5. Numberless men are today pitiable sexual neurasthenics from *coitus interruptus,* which they practise through ignorance of better methods of prevention. The knowledge of prevention of conception would do away with this evil.

6. Many men, knowing no means of prevention and fearing to impregnate their wives, are forced to go to prostitutes. In fact, I know and you know of wives who encourage their husbands in this practice—only to avoid the terrible ordeals of repeated pregnancies, labors, lactations, and bringing up of children. What the results of such practices may be it is easy to foresee. A knowledge of the prevention of conception would do away with this evil.

7. This point may seem trivial to you. It does not seem trivial to me. How many women have you known who had talent for singing, for painting, for poetry and literature, and in whom the arrival of children in rapid succession crushed out every ambition, deadened every desire, shattered every illusion? Children are a great thing—in measure—but their arrival at inopportune times or at too frequent intervals has rapidly metamorphosed many a high-strung, high-spirited girl into a spiritless, apathetic drudge. You who consider women good for nothing else except for child-breeding, may consider this of little importance. To me this is one of the greatest tragedies of life.

8. There are thousands of women whom to impregnate is almost equivalent to murder. I refer to women with advanced heart or kidney disease, with a tendency to eclampsia, with narrow and deformed pelves. I say, to make such women pregnant often means pronouncing the death-sentence upon them. The knowledge of prevention would save many such women from premature graves. Isn't it worth while?

9. Thousands and thousands of children, being borne by their mothers unwillingly, in anguish and in anger, are born into the world with an unstable mental and physical equilibrium, and being besides improperly brought up, on account of the mother's inability to attend to too many, forever after remain a burden to themselves and to others. The knowledge of prevention would obviate this evil.

10. We now come to an extremely important point. There are millions of married couples of whom either the husband or the wife, or both, are afflicted with some disease of a hereditary character. As examples of such hereditary diseases may be mentioned syphilis, epilepsy, insanity, perhaps also cancer. And people with such diseases, or with tendencies to such disease, for a long time yet will

continue to marry. (It will be centuries before people will be so imbued with the welfare-of-the-race idea that they will be ready to sacrifice their individual happiness and give up the object of their love and remain single whenever the abstract good of the race may demand it.)

What shall we do with such couples? Shall we permit them to breed syphilitic, epileptic and insane children? Shall we still further increase the burden of humanity, and shall we permit the number of defectives and degenerates to increase without any restriction? Surely not. So, what else can we do with such couples except to teach them fully how to avoid having children?

It Is Not Malthusianism

When I discussed this subject recently with some friends, one of them said: "Why, you are simply preaching Malthusianism." Now, first, if I were, that would be nothing against it. There will be a time when Malthus' essay on population will be taken down from the dusty shelves where it has been relegated for a century and will again be studied with care and attention. And it would do you no harm to read it now and try to learn something at first hand, and learn something about Malthus, who has been lied about and misrepresented, as all reformers and intellectual pioneers are.

And, second, I am not preaching Malthusianism. Malthus cared chiefly for the future. While I also care for the future, I care more for the present, and if we take care of the present, the future will take care of itself. Then, the only remedy that Malthus proposed or considered permissible was self-restraint, abstinence. We know now that, from a practical point of view, that remedy is worthless, while the remedy we propose is an efficient one, in fact the only one that would be readily accepted by the vast mass of the people.

Bear in mind that the chief theme of my discourse are the poor, the relatively poor, and those who for certain mental or physical disabilities are unfit for parenthood. It is they who should be taught the heavy responsibility of parenthood and the means of avoiding it. Those who are rich or well-to-do and are free from transmissible mental or physical taints may have just as many children as they wish. Not only as many as are considered proper by Professor Emeritus Eliot, namely, eight, but three times that many. So long as the mother has no objection to almost continuous pregnancies and lactations and so long as the parents are able and willing to care for and bring up a large progeny, nobody will say them nay. Later on, when the earth is really populated to its limit, the State may have something to say even to the rich, that is, if there will still be a rich and poor at that time; but that is not our concern. We are dealing with the now and here and not with the future or the hereafter.

The Morality of Having Few or No Children

I have answered the objections to the prevention-of-conception teachings and have shown the great benefits which the knowledge of prevention would confer upon mankind, the great evils it would obviate. We will now discuss the general ethics of small families, the ethics of having few children or none at all.

Of course, I take decided issue with one of our energetic, but somewhat superficial and somewhat blatant national leaders, who would stamp every childless couple as villains of the deepest dye, as men and women deserving the execration of all right-thinking people. I admit that there are people in whom the decision not to have children arises from selfish and perhaps ignoble motives. They don't want any children because they don't want any trouble, they don't want their social pleasures disturbed, they want fun and material comfort. We cannot respect such people very highly, but, as stated previously, the race is better off without their children; for, if they had children, they would not be properly brought up and the children themselves would probably grow up selfish, ignoble prigs. But in the vast majority of couples the determination to have one or two children only or even none at all arises from very high motives, and *a low*

birth-rate is, in general, not a sign of a low morality, but of a high morality, of a high intelligence, high sense of responsibility.

You will find that the stupidest, the most ignorant, the most wretched nations have the highest birth-rates, while the most advanced, the most civilized nations have the lowest birth-rate. As examples, it is sufficient to mention China and Russia on the one hand and France on the other. And in parentheses I will say that, if you have become imbued with the puritanical idea that France is degenerating, decaying, you should get that idea out of your head, for it is a false idea, and you certainly do not wish to harbor false ideas. In everything that makes life worth living—I have said this before—in general culture, in advanced, liberal ideas, in sculpture, in painting, in literature in all its ramifications, in science, France still stands at the head of nations. There is only one other country that stands fully abreast of France, and that country is—no, not the United States, not England—that country is Germany. And in Germany the birth-rate is also diminishing.

The Declining Birth-Rate

For instance, only in today's *Journal of the American Medical Association* (January 21, 1911, p. 208) we find an item entitled "Reduction of the Birth-rate in Prussia." From that highly significant item we learn that the ratio per 1000 child-bearing women, i. e., between the ages of 15 and 45, has declined (leaving out fractions) from 174 in the quinquennium from 1876 to 1880, to 161 for 1896 to 1900, and 154 in the period from 1901 to 1905. In the cities the ratio has declined from 160 to 129. In the rural districts, the ratio of fertility for the same period was 182, 183 and 178, respectively.

As you see, it is the falling birth-rate in the cities which occasions the marked diminution of the general fertility. This phenomenon is especially notable in Berlin and the cities of the Province of Brandenburg. The fertility ratio in Berlin sank from 149 in 1876 to 1880 to 88 in 1901 to 1905, a reduction of more than 40 percent.

In short, you can take it for granted that the higher the civilization, the lower the birth-rate; and, within limits, this will continue to be the case until our social-economic system has undergone a definite radical change.

And it is natural it should be so. For the responsibility of bringing a child into the world under our present social and economic conditions is a very great one. The primitive savage or the coarse ignorant man does not care. It does not bother him much what becomes of his offspring: if they get an education, if they have what to eat, if they learn a trade or a profession, well; if they don't, also well; if they achieve a competence or a decent social position, he is satisfied; if not, he can't help it. God willed it so.

But, on the other hand, the cultured, refined men and women look at the matter differently. The thought of bringing into the world a human being which may be physically handicapped, which may be mentally inferior, which may have a hard struggle through life, which may have to go through endless misery and suffering, fills them with anguish. For this is not a beautiful world. Let the softheads, the unthinking, the reactionaries repeat that this is a kind world, a good world, the best of all possible worlds. We who have thrown off all illusions, we who despise the untruthful fairy tales, we who demand to know the truth as it is, we who dare to face the facts as they are, know that this is not so.

We know that we have evolved from the jungle, and we know that this is a mean world, a cruel world, a hard world, a world full of tears, of heartaches, of degradation, of weariness, of never-ending drudgery; for many it is a world of misery without beginning and without end. It may be a beautiful world to some, but their number is so small as to be almost inexpressible in percentages.

The Dismal Life of the Hopeless Millions

He who can not see should not be blamed for his disability. A person should not be blamed for being affected with congenital or acquired blindness. But neither

should they who *can* see be blamed for their clear vision. And what do we, who have clear eyes—and feeling hearts—see when we look about us?

We see about us millions of working men and women who go through life, from cradle to grave, without a ray of joy, without anything that makes life worth living. In the higher classes we see a constant, hard, infuriated struggle to make a living, to make a career, and the spectre of poverty is almost as unremittingly before the eyes of the middle and the professional classes as it is before the eyes of the laborer. And all over we see ignorance, superstition, beliefs bordering on insanity, hardness, coarseness, rowdyism, brutality, crime and prostitution; prostitution of the body, and what is much worse, prostitution of the mind, the hiding or the selling of one's convictions for a mess of pottage.

And our prisons, asylums, and hospitals are not decreasing, but increasing in numbers and in inmates. And the standing armies and navies that crush the nations' backs are not signs of sanity, of goodness, of a high order of civilization.

And as we look beyond, into the eastern part of Europe, we see a huge empire, presided over by a brutal and imbecile tyrant, supported by a blood-thirsty pack of grand dukes and their satellites; and this czar and his hirelings hold in chains one hundred and thirty million human beings, whom they exile, imprison, crush and trample upon at their pleasure; the very best and noblest of Russia's sons and daughters—her scientists, her writers and her thinkers—are pining away or going insane in subterranean dungeons, are knouted or deliberately starved and frozen in the mines of Siberia or are dangling from a thousand and one gibbets. And the so-called civilized nations of the world, the United States, England, and France included—sit by and say nothing. When with your physical or mental eye you see those things, you cannot say that this is a good, a beautiful world—not if you are sane.

And still I am an optimist. An optimist as to the future. For when I compare the present with the past, there is not the *slightest* question in my mind as to the *wonderful* progress we have made. And our progress in the future will go at a much more rapid ratio.

But while very hopeful for the future, I do not deceive myself, as I said, as to the present; and this brings us back to the point from which I fear I made a rather too wide digression. It brings me back to the point that, while the world is as full of misery as it is, we cannot blame people for refusing to bring additional sufferers into it.

In fact, I am almost ready to believe that it would be an excellent thing if all the women throughout the world went on a strike for ten or twenty years and refused to bring a single child into the world during that period. The idea really appeals to me. The labor market would not be glutted, people would not have to cut each other's throat for a little business or a position, and we would perhaps get a semblance of peace of mind or independence. And the alarmed monopolists and statesmen would perhaps then decide to do something real for the people.

The Attitude of Our Philanthropic Agencies on This Question

A few words about our philanthropic organizations and social agencies in their relation to this problem. Good men and excellent women are depicting to us the horrors of the slums. We are being shown how many people are huddled together in one small room. We are being told how many dozens of willow plumes, of buttonholes, how many pairs of trousers and shirtwaists, of artificial flowers, etc., the poor working child has to produce in order to gain a beggarly few cents. We justly shudder at the injustice and horror of child labor. We often receive harrowing letters from charity-organization societies asking aid for a poor mother with six or seven little starving children. Here, for instance, I have a picture sent out by the New York Association for Improving the Condition of the Poor. It depicts a mother with a newborn babe in bed and a poor workman sitting by and holding his hand despondently to his head. The legend

under it reads as follows: "Father a crippled street-cleaner out of work with six children. Youngest, three days old." And he is asking the question, "What am I to do?"

You have probably all read the heart-rending account in last Tuesday's papers (Feb. 28, 1911) of a starving family of nine: father, mother and seven children. An extract from the account in question is as follows:

> . . . The man while working as a painter's helper fell from a scaffold. He injured a leg severely. But when it got well he could get no work and his savings were soon exhausted. Neighbors almost as poor as himself saved scraps of food from their own scantily supplied tables for the destitute family, and on this they existed.
>
> During one snowfall the man worked for two days at shovelling—worked in cracked shoes and thin clothing. He lay for a week afterward on a pallet on the floor, stricken with pneumonia. When he got out again, there was another snowfall, and he sought work again. But he was so weak he could not raise a shovel and he was discharged.
>
> He said last night, wringing his hands, that he had sometimes begged from door to door, and prayed and prayed for work. The eldest child is a boy of fourteen, but he has been a cripple since birth and he could not get work. The youngest is four months old.
>
> Reporters found the children lying with rags on top of them in a room heated only by an oil stove. One of the children had found half a stale loaf of rye bread on the sidewalk earlier in the day and this, soaked in water, had been the only food for the family of nine. The reporters themselves made up a purse to give temporary subsistence, and the man and woman and elder children went down on their knees to ask blessings on the young men who had succored them.

Such harrowing stories could be presented by the thousand.

Present Methods Only Palliative

Vast amounts of time, energy, labor, and money are expended to alleviate the intolerable sufferings of the poor. And we now help them, not only with food, clothing and money, but we teach them how to take care of their health. Physicians and district nurses go about teaching the poor how to live hygienically, how to take care of their children so as to decrease the infant mortality, and hospitals and dispensaries are always open and ready to provide medical aid whenever needed.

Far be it from me to sneer or to speak in any way disparagingly of our numerous philanthropic enterprises. I sincerely respect every honest endeavor to alleviate the lot of mankind, even if personally I may consider the attempt ineffectual. I do not sneer even at the Salvation Army, for I know that they reach certain dregs of humanity which no other agency can reach. Yes, all the organizations and agencies which have for their purpose the alleviation of suffering, the easing of pain, the stilling of the pangs of hunger, the clothing of the shivering body, have my respect and sympathy. I know that they do not go to the root of the evil, I know that they will not cure or permanently relieve our ills, I know that they are only palliatives, but as a physician I know that when a disease is established it is often too late to speak of removing the cause, and I know that there are many conditions where palliatives are not only useful and necessary, but the only remedies that we can use.

Promise of a Wonder-Working Reform

But, nevertheless, it is my sincerest and deepest conviction that we should accomplish incomparably more if only a small part of the energy and money we spend now on philanthropic efforts were expended in teaching the women, the married women of the poor, how to limit the number of their children; in other words, how to prevent conception.

It would work a wonderful reform in the lives of the poor, and our slums would be metamorphosed in ten years.

Instead of trying to patch up the results of an evil system, let us try to remove its principal cause. Instead of trying to enlist our sympathies for a poor woman with nine children, let us see that that poor woman does not have nine children. A poor woman should have no children, or not more than one or two. And I venture to say that very few in this audience will disagree with me if I state that instead of sending that poor, crippled street-cleaner, who is out of work and who has brought six children into the world who will most probably also be poor, starving devils, I say, instead of sending him ten dollars, it would have been much better to have impressed it upon him and upon his wife that they had no right to have

six children, and to have given them the means of avoiding having such a large progeny.

And one of the central thoughts of my discourse tonight, one of the thoughts that I would like you to carry away with you and to ponder at your leisure is this: Let the district physicians and district nurses who visit the poor be *not only* permitted, but *instructed* to teach the poor mothers how to avoid having more children than they can properly support and care for. And let us also institute a propaganda which will work a change in public opinion, so that it may not be considered a matter of pride, but a matter of shame to give birth to children for which the parents must invoke public aid.

We have no right to blame the poor *now*, as long as large families are encouraged and praised by some of our socalled "foremost citizens," and as long as the only remedy we offer them is self-restraint. It is we who are to blame now for the large families of the poor, and for this reason we are morally obliged to give them all the financial and medical aid that they demand. But when effectual means are put into their hands for limiting the number of their offspring, then they, and not we, will be to blame if they do not make use of them.

And if we did that, if we succeeded in reducing the childbirth-rate among the poor to the proper and desirable limits, we should not have to be brutal and inhuman to those seeking the hospitality of our shores. We should not have to send back from American opportunity, in deepest despair to the conditions largely produced by this very thing against which I am contending, a strong, clean, able-bodied man because he has only $18 in his pocket instead of $25, as we read of only this week. We should not send back intellectual men suffering from a mild conjunctivitis which the overzealous, but not overcompetent, doctor diagnosed as trachoma. In short, we should not be forced by our overcrowded condition to pass inhuman laws to drive back people who are every whit the equal of those who, coming in former years, have helped to build up this country, helped to make it what it is materially and intellectually.

Is Our Propaganda Making Progress

Is the propaganda for smaller families making progress? There are many people who will not adopt a belief unless they know that it is shared by thousands; will not join a movement unless they know that it has or will have thousands of adherents. And if a belief is shared by thousands or millions, that is in itself proof to them that the belief must be correct.

It is needless to say that your speaker tonight does not belong to this class. On the contrary, the very fact that a belief is readily accepted by the masses—and intellectually the vast majority of those who live in brownstone houses belong to the masses or the rabble—would make him look upon such a belief with critical suspicion. And he does not wait for the approval of the multitude before announcing his opinions. If he, after a thorough, careful, painstaking and perhaps painful consideration, should consider a thing right, he would advocate it, even if he knew that he were the only person among the fifteen billion inhabitants of the globe to hold such views. He did not wait for his views on small families and the prevention of conception to become popular, before he began to advocate them to the medical profession and to the public.

But it is pleasing to note that these views are now gaining adherents among thinkers everywhere, and are beginning to be expressed by men holding high positions in highly respectable institutions. For instance, the daily papers of January 1, 1911, printed statements from an address made by Prof. Thomas Nixon Carver, of Harvard. Such statements from such a source would have been unthinkable ten years ago. Dr. Carver is the Wells Professor of Political Economy at Harvard and Secretary-Treasurer of the American Economic Society, and one paragraph in his remarks is very happily expressed.

He said: "Foxes think large families among the rabbits highly commendable. Employers who want large supplies of cheap labor, priests who want large num-

bers of parishioners, military leaders who want plenty of cheap food for gunpowder, and politicians who want plenty of voters, all agree in commending large families and rapid multiplication among the poorer classes."

This coming from a Harvard professor is certainly a happy sign of the times, and I would recommend to a certain strenuous Harvard graduate to commit this paragraph to memory.

Yes, our propaganda is bearing fruit. All earnest, truthful propaganda will bear fruit, and will make converts. At first the people are shocked, antagonistic, and call you names; gradually they become tolerant, then they adopt your ideas, and then they say, "Why, we have always thought like that."

And so this world goes. But if we have a message to deliver to the world, we must deliver it, and if in order to make an impression it is necessary that we harp on one string, we must not shirk the unpleasant task. I know that some people are impatient at mere talk: "Do something," they say, "act!" But before we can act, we must talk; just as before we talk, we must think.

Concluding Reflections

That there may be no misunderstanding, let me just add this: I do not offer my remedy as a panacea for all our ills. It will not revolutionize society, it will not abolish the wage system, it will not bring about the cooperative commonwealth, it will not change human character, but that it will do very much toward accomplishing all these things I have not the slightest doubt.

And I will, therefore, repeat the paragraph which has been distributed to all of you: "There is no single measure that would so positively, so immediately contribute toward the happiness and progress of the human race as teaching the people the proper means of the prevention of conception." This has been my deepest and sincerest conviction since I have learned to think rationally. It is the deep and sincere conviction of thousands of others, but they are too cowardly to express it in public.

In conclusion, I should like you to carry away this thought. It isn't that what I advocate is something entirely novel, something that is not practised at all. You know very well that prevention of conception is practised in millions of homes, only it is practised in a bungling manner, and it is not practised by those who are in most need of it. The rich and the upper-middle classes, those to whom several children would be the least burden, are quite familiar with the various means of prevention. If occasionally they do get caught, they know an accommodating gynecologist who takes care of them—for the price. I understand there are rich women who visit their gynecologists with monthly regularity. The poorer middle classes use preventives recommended by their friends; these preventives sometimes succeed, sometimes fail, and sometimes ruin the woman's health. While the very poor, the wage earners, those who can least afford to have an unlimited progeny, knowing of no means of prevention, go on breeding to their own and to the community's detriment. The result, as you can plainly see, is a general lowering of the race.

For if the cultured and the well-to-do do not breed, or have only few children, while the poor and the ignorant go on having a numerous progeny, a progeny for which they cannot well provide and which they cannot afford to educate properly, it stands to reason that the percentage of the uneducated, the unfit and the criminal must go on constantly increasing. And this is something that no sincere lover of humanity can look at with equanimity.

It is because I am deeply, painfully interested in the welfare of every individual family, as well as in the welfare of the entire human race, that I so persistently, unremittingly, perhaps to some even obnoxiously, advocate the dissemination of the knowledge of the prevention of conception. And if I have succeeded in converting at least some of you to my way of thinking, the time and labor spent on the preparation of this discourse has been repaid a hundredfold.

Dosage in Old Age

An Important Contribution to Geriatric Therapy

By I. L. NASCHER, M. D., New York City

DIAGNOSIS and treatment, the two most important divisions of geriatrics (the branch of medicine dealing with senility and senile diseases), shares in the general neglect of the whole subject. Lacking an intimate knowledge of the senile organism, in which every organ and tissue is degenerating, and uninformed of the action of drugs upon such altered organs and tissues, we treat our senile patients the same as we would younger individuals, perhaps diminishing doses without rule or system. There is no rule for dosage in old age. The ancient dogma, "children and the aged cannot stand large doses," when applied to the aged is a generalization in which the exceptions exceed the application.

Consider Both Primary and Secondary Effects

In giving drugs to the aged, we must consider as equally important the primary action, the secondary effects, the rapidity and duration of action, the assimilability, and the elimination.

The assimilability and elimination depend upon the condition of the digestive and eliminative organs, and as these are almost always degenerating in old age, the rapidity and length of action and often the effect of the drug are unfavorably influenced thereby.

Secondary effects of drugs upon the degenerating tissues are often so pronounced and pernicious as to vitiate the beneficial primary effects, while the primary effects are sometimes altered. Iron, for example, has little or no effect upon the blood in senile anemia, the depressant effects of the aniline derivatives are more dangerous than the conditions for which they are required, and the extremely slow absorption of tannin-bearing drugs make them virtually inert.

Danger of Vasoconstrictors in Senile Cases

A death from apoplexy following a hypodermic injection of digitalin in threatened heart exhaustion first showed me the danger of giving vasoconstrictor heart tonics in old age. In senility there is always some atheroma of the cerebral vessels, and under the combined blood-pressure raising influences of vasoconstriction and increased heart tonicity, there is always the danger of rupture of some degenerating blood-vessel. When digitalis is indicated, small doses are useless unless combined with other heart tonics, and large doses are dangerous unless combined with vasodilators. The crude drug and the tincture are so slow in their action as to be worthless except as a precautionary measure. In an emergency the active principle must be given hypodermically, combined with a rapidly acting vasodilator like nitroglycerin. Given in this way, the organism can tolerate large doses.

The slow and prolonged action of digitalis makes it available for continued use, but we have here the danger of a cumulative effect.

In threatened heart exhaustion strychnine is better than digitalin and can be given in a single dose of 1-20 grain. Sparteine and strophanthin can be given in large doses, the latter combined with a vasodilator. In senile debility, phosphorus can be given in doses up to 1-20 grain.

For Senile Constipation

In senile constipation due to waste of the muscular fibers of the intestines, whereby intestinal peristalsis is lessened, peristaltic stimulants like aloin, cascara, the bile salts, etc., are required, and as the waste of muscular fibers proceeds, we must increase our dose of the cathartic. The increased dosage required in such cases is not due to habituation, as is generally supposed, but to more advanced senile changes, and if we change the drug, the new drug must be given in correspondingly large doses.

In like manner, gastric stimulants, hepatic stimulants, and all drugs used to in-

crease the activity of organs and tissues which have become weakened through senile changes, must be given in increased doses.

Since stimulants are more often required than sedatives in senility, the rule of diminished doses in old age is irrational. In determining the dose, we must remember that increased activity in a degenerating organ hastens the degeneration, and while larger doses than in maturity may be required to produce effective results, for prolonged use we must begin with the minimum dose that will give an appreciable response. This does not apply to drugs from which the full effect is expected from a single dose, as when a cathartic is given for temporary constipation. In such cases as much harm is done by an insufficient dose as by an excessive dose, for an eliminant which does not eliminate becomes a local irritant.

Use of Functional Depressants, Opium Particularly

Depressants and drugs which inhibit or diminish functional activity must be given in smaller doses in old age. This does not apply to drugs which produce a short stage of excitement before the desired sedative action, as when giving narcotics.

We are warned against giving large doses of opium and its preparations to the aged. The danger is not from the narcotic effect, but from the secondary effect upon the respiratory centers, and this danger may be averted by adding atropine. There is a further danger, when giving opium, from its slow elimination and its inhibitory effect upon intestinal peristalsis. The socalled greater susceptibility of the aged to opiates is purely imaginary, the only basis for this oft-repeated statement being the greater danger from the secondary effects upon the respiratory centers, and the danger from habituation and from cumulative action.

Danger of Cardiac Depressants

All sedatives which depress the heart are dangerous in old age and should be given in smaller doses, combined with heart stimulants acting with equal rapidity. For this reason, when giving acetanilid, it should be combined with ammonium carbonate and not with caffeine. Chloral is a heart depressant and the ordinary heart stimulants are either too slow in action or antagonize the hypnotic effect. While caffeine produces insomnia and is therefore a physiologic antagonist to chloral, I have used the two in combination (1-4 grain of the citrated caffeine to 10 grains of chloral), and obtained the desired effect of the chloral without weakening the pulse. The bromides are rarely required in senility (never in senile tremor), and when given, small doses are generally effective.

The nitrites must be given in small doses, except when given in combination with large doses of vasoconstrictor heart tonics.

I know of no condition in senility in which the prolonged use of depressants is indicated.

Warning About Alteratives

The uncertain action of the alteratives upon the degenerating organs and tissues of senility makes it impossible to formulate any rules for their administration. The iodides, which apparently cure arteriosclerosis in maturity, have no effect upon this condition in senility and even small doses will produce gastric irritation. The iodides, when given at all, must be given in small doses, as they produce albuminuria or increase the amount of albumen where albuminuria is present.

Arsenic follows the rule for stimulants. I have given the iodide of arsenic in 1-15-grain doses as a general tonic and found an improvement in the pulse. This drug, however, is very unstable and it disturbs digestion. This is the only iodine compound that I have had any success with; three cases in which it was used after I had discontinued Fowler's Solution showing a softer pulse. Fowler's solution may be given in doses of from 5 to 10 minims in twelve-hour intervals, until the gastric disturbance necessitates its discontinuance.

Of the mercury salts, calomel is the only one finding much application in senile cases. When used as a purgative, it can be given in doses of 5 grains. When, however, there is deficiency of bile due to the senile changes in the liver, it is better to supply the deficiency artificially by the

use of ox-gall or bile salts than by stimulating the liver, thereby hastening its degeneration. Phosphorus can be given in doses up to 1-20 grain.

Points On Combining Drugs

In combining drugs, we must not forget that drugs given to counteract detrimental secondary effects may themselves have detrimental incidental effects. The popular aloin, strychnine and belladonna pill is useless in senile constipation, for this reason. This condition is due to lessened intestinal peristalsis caused by waste of the muscular fibers of the intestines. The belladonna given to counteract the griping effect of the aloin diminishes peristalsis, thereby antagonizing the action of the aloin, which is intended to increase peristaltic activity.

Drugs given hypodermically follow the general rule of increased doses for stimulants and diminished doses for depressants, and, owing to the rapid action of drugs given this way, it is of the utmost importance that they be combined with others capable of counteracting undesirable secondary effects.

Drugs administered by inunction must be given in large doses, on account of the difficult absorption by the skin in old age. Absorption is hastened when a slight local hyperemia is produced on the site to which the drug is to be applied, by laying a cloth moistened with hot water over it. I will mention incidentally that pure, unsalted butter free from water is an excellent base for the administration of drugs by inunction; it is also a good vehicle for ointments.

Immunity in Infectious Diseases

By H. J. Achard, M. D., Chicago, Illinois

THE fact that one attack of an infectious disease produces an immunity to further infections from the same virus in the person affected has been known for centuries. One of the most typical diseases, from this point of view, is smallpox, in which one attack almost invariably protects against later attacks, that is, renders the victim immune to the disease. The very isolated cases on record in which smallpox has occurred more than once in the same person are so few as practically to establish the rule. A similar immunity occurs in some of the other acute infectious diseases, notably in scarlet-fever and measles.

On the other hand, there are certain diseases an attack of which appears to render the organism predisposed to subsequent ones. Thus it is by no means infrequent for an individual to suffer from several attacks of typhoid fever, while diphtheria and whooping cough also may occur repeatedly in the same person. We even know now that there are many individuals in whom one siege of measles by no means establishes an immunity, and the writer has personal knowledge of several patients who have had this disease at three or four different times The same is true of scarlet-fever, although in a much slighter degree.

Does Tuberculous Infection Engender Immunity?

The question has been raised, ever since the infectious nature of tuberculosis was established, whether in this malady the infected organism does not set in motion a similar apparatus of immunization; that is, whether tuberculosis is not followed by immunity, to some degree at least. To a certain extent this question may be answered affirmatively, but the immunity produced in this disease depends upon so many factors, and is at best so slight and so easily overcome, to be replaced, for some biochemical reasons, by the reverse of immunity (that is, hypersensitiveness), that we cannot derive any clinical advantages from the immunity produced spontaneously in tuberculosis, except by the closest possible study of the problems involved.

Since the mode of defense of the organism to any infection is alike in principle, and since the problems of tuberculosis are most

familiar to the writer, he will attempt to elucidate and describe briefly the mechanism of immunity, using tuberculosis, or rather, a tuberculous infection, as a paradigma.

In this connection the writer must insist upon an understanding of the correct terms to be employed, in contrast to the prevailing slip-shod custom in terminology.

A Definition of Terms

It will suffice for our purpose to point out that an *infection* is not the same as the corresponding *infectious disease*. Infection means only the introduction into the animal organism of an infectious virus, which, for reasons presently to be considered, may not lead to any one structural or chemical changes, that is, may not cause the infectious disease. This latter exists only then when the functions of the organism are in any way interfered with by the results of the infection, by the pathogenic action of the infectious organism, by the resulting alteration in the tissue of the infected organ or organs. We shall, in the following, distinguish sharply between the two terms.

Mode of Entrance of the Tubercle Bacillus

The tubercle bacillus may be introduced into the body either through the respiratory passages, through the digestive tract, or through the skin. The last mode, as well as the socalled traumatic infection, that is, the direct infection of a wound with tuberculous material, is so rare as to permit us to leave both out of consideration in our present inquiry. The introduction of the tuberculous virus by way of the digestive tract is claimed to be the principal mode of infection in tuberculosis by von Behring, Calmette, and by many French, English and American physicians, less by German investigators. This, however, does not appear to be well established, at least not sufficiently so to invalidate the other theory, namely, that the principal form of tuberculous infection occurs through the respiratory passages. The writer believes that the latter theory is the correct one, at least for the majority of cases, and will therefore consider it as established for his present discussion.

Shortly before the discovery of the tubercle bacillus (1882), Julius Cohnheim, in discussing the probable nature of the tuberculous virus, said: "According to our present conceptions, everybody in whose organism the tuberculous virus is established becomes tuberculous."

Not many years after the discovery of the tubercle bacillus, Prof. Straus of Paris, as the first, showed virulent tubercle bacilli in the nasal secretions of many students, nurses and recovered patients in the consumption wards of the Paris hospitals, the students and nurses in question not showing any evidences whatever of tuberculosis. They were immune.

This finding of Straus, which was soon verified by many other investigators, did much to resuscitate the older notion, almost abandoned under the impetus of bacteriological investigation, of the importance of a predisposition, or of a proper soil for the occurrence of an infectious disease, especially of tuberculosis. In short, it was admitted that, for tuberculosis to develop, the mere presence of the tubercle bacillus in the body does not suffice, but that it can only act as the seed for the disease if the soil is favorable to its growth, if the organism is predisposed.

Soon afterward Buchner published his first papers upon what he called alexins, or protective substances; and with these investigations of Buchner the theory of immunity in infectious diseases was rapidly developed, until today we have a very fair conception of its mechanism.

Let us try to follow the course of a tuberculous infection, and of the reaction of the organism to this infection, using as nearly as possible plain English, without any technical terms. It must, of course, be remembered that there are a great many factors at work which determine the predominance either of the tubercle bacillus or of the organic resistance, also the relative virulence of the infection, and the presence or absence as well as the degree of an existing predisposition to the tuberculous disease.

The Process of Invasion

When tubercle bacilli are inhaled, the first point at which they are likely to be arrested is at Waldeyer's ring. Either during the inspiratory movement or, and still more,

during the act of deglutition the germs may be forced against the tonsils and into the tonsillar crypts, where they find in the secretions an excellent soil for their propagation. They may also be forced against one of the other glands making up the ring of Waldeyer or else they may be drawn into the bronchi and their divisions and subdivisions.

Wherever tubercle bacilli are arrested, they act as foreign bodies, and suffer the same fate as do particles of dust carried into the respiratory tract with the inspired air. From the surrounding circulation, migratory cells appear, which engulf these invading foreign bodies and deposit them in the nearest (regional) lymph-glands. In these lymph-glands the tubercle bacilli may, for the present, remain without multiplying and without producing any tissue alteration. On the other hand, they may multiply, and then, by their direct stimulation of the tissues, lead to an outpouring of leukocytes, which, together with other cells, attempt to wall in the *noxa* and to render it harmless. If this were the end of the song, the problem would be simple. The tubercle bacilli imprisoned within a wall of cells would be comparatively harmless.

Unfortunately, the tubercle bacilli do not submit to their imprisonment without opposition. They secrete certain toxins which have the effect of causing the center of the tubercle to undergo necrotic changes (caseation) followed by softening. When the tubercle in one of the regional lymph-glands has become caseous, the leukocytes carry the tubercle bacilli to the next lymph-gland. And this process is repeated until the great system of lymph-glands at the hilus of the lungs is reached, and at last these have become subjected to tuberculous changes. (Cornet.)

The Defensive Processes in the Blood

According to the latest investigations, the blood-cells or the blood-serum are capable of engendering certain chemical substances which influence the tubercle bacilli in such a manner that they shall become amenable to the destructive (digestive) action of the phagocytes. Other substances are elaborated in the blood (whether by the cells or in the serum is not definitely determined), the exact chemical nature of which is not at present known, except that they are probably albuminoid bodies, but which may exert both an antibacterial and antitoxic action. Reference has already been had to some toxins which the tubercle bacilli produce, namely, to those which are responsible for the caseation of the tubercle. Other toxins, as has first been shown by French investigators, act by stimulating the formation of fibrous tissue, and if these toxins are secreted in preponderance, we may get fibrous changes in the tubercle, or healing; we may also get fibrous phthisis.

The substances developed in the blood which antagonize the growth of the bacteria may act either by injuring their fatty or waxy capsules so as to render them susceptible to the action of the phagocytes (opsonins); or they may have the effect of gluing together the bacteria, disabling them from multiplying (agglutinins); or they may act in other ways by which the propagation of the bacilli is arrested.

Other protective substances, as already intimated, antagonize the toxins produced by the infectious virus, and these act as antitoxins. This last is a very important protective provision of the organism, because the toxic effect of the tubercle bacilli is by no means the least formidable one for the production of tuberculous disease, it having been well ascertained in recent years that tuberculosis is characterized fully as much by a tuberculous intoxication as by the tuberculous infection. (I leave, at present, the question of mixed infection and of mixed intoxication purposely out of consideration.)

From the foregoing it will readily be seen that, generally speaking, the occurrence of tuberculous disease following upon tuberculous infection depends upon the degree of resistance put forth by the organism. If this resistance is sufficient to prevent the further multiplication of the tubercle bacilli and to neutralize the tuberculous toxins, the infection will remain latent or at least inactive, and tuberculosis will not result, or, if it has already commenced, it will be held in abeyance. If, however, the organism is incapable of developing a sufficient amount of effective protective substances, then the tubercle bacilli will prevail, and tuberculosis

will result; owing to a temporary inability of the attacked organism to defend itself, the tuberculous process may progress to a certain point, when the power of reaction of the organism may again be restored. In this case, the further growth of the inimical bacilli is arrested, the toxemia is neutralized—in other words, an immunity is established—and the tuberculous process becomes inactive, latent or, in the most favorable case, extinct.

Inhibition, or Arrest, of Bacterial Growth

This inhibition of the bacterial growth and its consequences will occur in a healthy organism in which the reactive power is sufficiently intense, that is, in which the protective substances are elaborated in a sufficient amount and quality, and in which then the phagocytes are numerous enough and powerful enough not only to engulf but also to destroy the offensive bacteria. This inhibitive power may also be induced artificially by the administration of drugs having the known effect of causing a hyperleukocytosis, both in number and quality, as for instance nuclein.

However, the resistance of the organism may be overcome or weakened at any time by factors constantly operative in our "civilized" lives, such as worry, mental strain, exposure, acute diseases and the like. If this has occurred, and if the inhibition of the bacterial activity is arrested thereby, the bacteria may again become active, provided they are still viable or virulent, the tuberculous process will be reactivated and will gain a further advance, until—whether through the stimulation of the organic reaction-power or through remedial agents—the resistance of the body is again sufficiently strengthened to arrest the disease.

This advancement and arrestment, with periods of latency, may be said to occur periodically in the early course of tuberculosis. The tuberculous process, activated for some reason or other, progresses until the organism is stimulated and irritated so as to produce the protective substances and to develop a sufficient amount of tuberculous immunity to arrest it. The oftener this hide-and-seek play has occurred, the more intense will, as a rule, the tuberculous process become, and the less efficiently will the self-immunization of the organism develop, until during the combat a considerable amount of tissue has been destroyed in the affected organ, so that the general health has become involved, and the function of the organ can no longer be carried on efficiently.

Anaphylaxis, or Hypersensibility

There is another factor which is of importance for the occurrence of progressive tuberculosis, or phthisis. I refer to the hypersensibility (anaphylaxis) produced by a first infection. The theory of anaphylaxis was announced a few years ago by Richet, and was studied, in this country, especially by Rosenau and Anderson of the Hygienic Laboratory. In Germany, von Behring had investigated the problem for more than twenty years, and early in this century, before Richet, von Pirquet and Schick published several contributions to the subject from Vienna.

This theory means, briefly, that if a "foreign" (heterogenous) albumin is introduced in an animal organism, a second introduction of the same substance, after a certain period of incubation, even in minute doses, will cause symptoms of intoxication.

Years ago von Behring expressed the opinion that consumption in adolescents or adults was due to a tuberculous infection during infancy or childhood and which remained latent for years, becoming active later in life. Eventually this opinion was modified to the effect that the first infection was not sufficient in itself to produce a progressive tuberculous disease, but that it sensitized the organism so that a later reinfection would find it hypersensitive, that is, less resistant and, in fact, predisposed to the pathogenic action of the virus.

Congenital Susceptibility and Immunity

This idea, somewhat modified, was made use of by Courmont, in an attempt to explain the susceptibility of the offspring of consumptive mothers to tuberculous infection.

Courmont claimed, and his opinion was supported by the authority of Arloing, that from the blood of the consumptive mother tuberculous toxins pass through the placenta

into the fetal circulation, and that then the fetus is in the same condition as a guinea-pig that has been infected once, and which, on a reinfection, rapidly succumbs to acute tuberculosis. The offspring of such a mother develops tuberculosis whenever exposed to the slightest degree of a tuberculous infection, because this individual has become sensitized (made hypersensitive, or anaphylactic) by the intrauterine tuberculous intoxication.

This theory of Courmont is very plausible, to say the least, and may eventually enable us to work out the problem of heredity in tuberculosis. (See my paper on this subject in *The Illinois Medical Journal*, for September, 1910.)

On the other hand, I have found, while in the Winyah Sanitarium in Asheville, North Carolina, that if tuberculous toxins are transmitted from the mother to the fetus, specific antituberculous substances may also pass into the fetal circulation in the same manner, and that thus a consumptive mother may transmit to her offspring a degree of tuberculous immunity. The problem is being studied at present, and will, I hope, lead to positive results in the near future.

However this may be, there can be no doubt but that in the course of our daily lives we are subjected to frequent and repeated infections by tubercle bacilli, and they may, according to the lack of susceptibility of our organism remain harmless; but they may, on the other hand, in proportion to the want of resistance, the hypersensitiveness or what-not, develop and eventually lead to progressive tuberculous disease. In this connection, I refer to an interesting paper by von Pirquet on this subject printed in *The Archives of Internal Medicine* for February. It is not here the place to enter into a detailed discussion of the problems involved. I hope that what I have said may be sufficient to afford some sort of an explanation of what may be thought as occurring.

Increasing the Body's Resistance

It has already been mentioned that the protective power of the organism may be increased and stimulated by remedial agents, and nuclein has been mentioned as an agent which is known to produce a quantitative and qualitative hyperleukocytosis. Other means of producing a tuberculous immunity in the infected organism are presented in the socalled specific remedies for the treatment of this disease, that is, in the various tuberculins and the products of the bacillary bodies. The writer has briefly described a number of these preparations in *The Chicago Medical Recorder* for April, 1911, and has also discussed the question in The American Journal of Clinical Medicine for June, 1910. The problem will be further discussed in other contributions on the subject, in this journal.

It stands to reason that the organism will be assisted in its fight against any invading infectious *noxa* if its every function is raised to the highest possible degree of efficiency, if, for instance, the hemoglobin-content of the blood is increased (it will usually be found low) by means of proper medication, if the digestive and assimilative powers of the body are stimulated so as to result in an efficient and satisfactory state of nutrition. By careful but sufficient elimination, the body may be rid of its intoxication, while by other means well known to every practician its general functions may be stimulated and its nervous equilibrium restored.

The Rational Management of Carbuncle

By BENJAMIN H. BREAKSTONE, B. S., M. D., Chicago, Illinois

Professor of Clinical Surgery in Bennett Medical College, Medical Department of Loyola University; Professor of Clinical Surgery, Reliance Medical College; Attending Surgeon, Jefferson Park Hospital; Member of the Consulting Staff, Cook County Hospital; Consulting Surgeon to Mary Thompson Hospital

EDITORIAL NOTE.—This is a continuation of Dr. Breakstone's series on "Everyday Surgery." These articles appeal particularly to the general practician because they tell him of cases such as he may be called upon to treat himself, and describe technical methods that are within the scope of his own training. The series will be continued.

THERE is perhaps no infection on the neck of the male adult so common as carbuncle, and, more, it is not infrequent that one sees these victims parade the streets for weeks, and even months, with the bandage around their necks.

Nature and Cause of Carbuncle

A carbuncle is a multiple abscess; that is to say, it consists of many, sometimes hundreds, separate little abscesses beginning in a hair-follicle, and each of these little abscesses remains distinct and an individual abscess until gangrene occurs. Then the carbuncle looks like one or more large abscesses, but in reality it is only thus superficially, for deeper in the tissues each particular abscess still retains its individuality, a pocket of pus in itself.

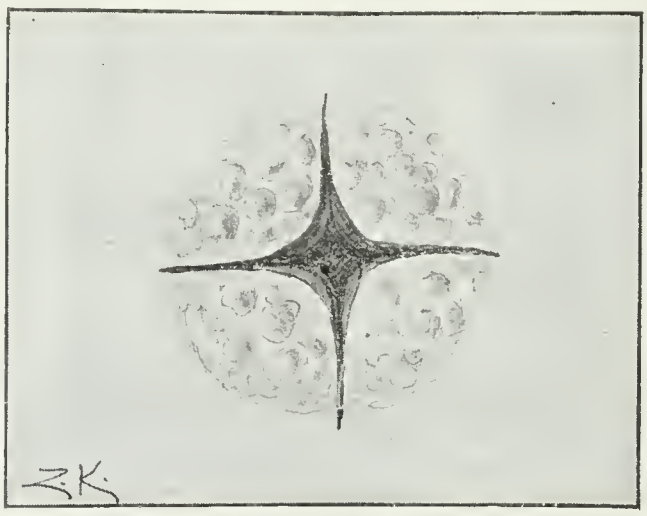

Fig. 1. Showing the crucial incision

The reason why carbuncle is so frequent in men and very rare in women is because the men wear stiff collars, which irritate the nape of the neck and thus afford an opportunity for the entrance of pathogenic microbes into the hair-follicles. Especially is this true when the neck has been freshly shaved. In reality, therefore, a carbuncle is a multiple folliculitis, and it is necessary to be acquainted with these facts before we can intelligently discuss its treatment.

The Accepted Treatment Is Unsatisfactory

The favorite treatment at the present time is the crucial incision; still, it can readily be seen, that is not a curative measure, for it only opens up abscesses within the path of the incisions, leaving the hundreds of other little abscesses untouched, as shown in Figure 1. And even if we supplement this crucial incision with curetting, hundreds of follicular abscesses nevertheless will remain intact.

More recently multiple incision has been practised for the cure of carbuncle, but this method is open to the same objection as the other.

As to practical results, we do not get them from either of the methods mentioned. For, in the first place, the patients are not relieved of their pains; then, they continue to suffer for weeks and months, having to undergo the operation repeatedly, until, at last, with the aid of a kind Providence, the infection eventually is gotten rid of, but only after the patient is completely exhausted, has become a habitué of narcotics, is extremely anemic, and must now be referred to medical men and neurologists for further constitutional treatment.

It will not be my purpose here to discuss the abortive treatment, although the meth-

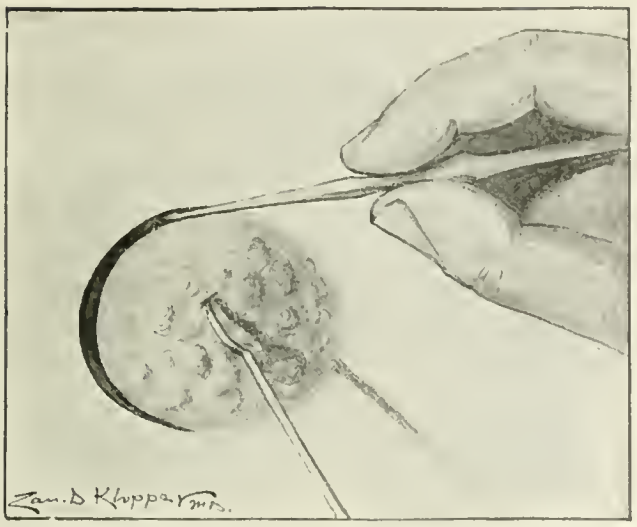

Fig. 2. Illustrating the radical by complete incision operation for carbuncle

od I am about to describe will cure carbuncle at any stage quickly and permanently.

The Rational Operation

It seems rational to me that, to cure multiple abscesses of the nature of carbuncle, all of these abscesses must be removed in this wise:

First scrub well and thoroughly asepticize the field of operation. Then, after picking up the carbuncle with a sharp hook, with a long, narrow-bladed, sharp scalpel or bistoury, make a circular sweep clear around, in an inward manner and toward the center of the field, and thus remove the entire infected mass in the form of a cone—as shown in Figure 2. If any of the infected tissue is found to remain, then this should be curetted away.

Fig. 3. The cone of festered tissue lifted out

However, if the operation is perfectly performed, all of the infected tissue composing the carbuncle will be removed with one quick circular sweep of the knife, so that there will be remaining a conical cavity that may go down to the deeper muscles of the neck, the apex being in the deeper tissues and the base at the skin opening, this opening varying in size with that of the carbuncle, but taking in all of the reddened area around the carbuncle, so that in some cases the layer of skin cut out is several inches in diameter. Not a particle of infected tissue should remain in this cavity. This wound, when clean, is packed with iodoform gauze, a dry

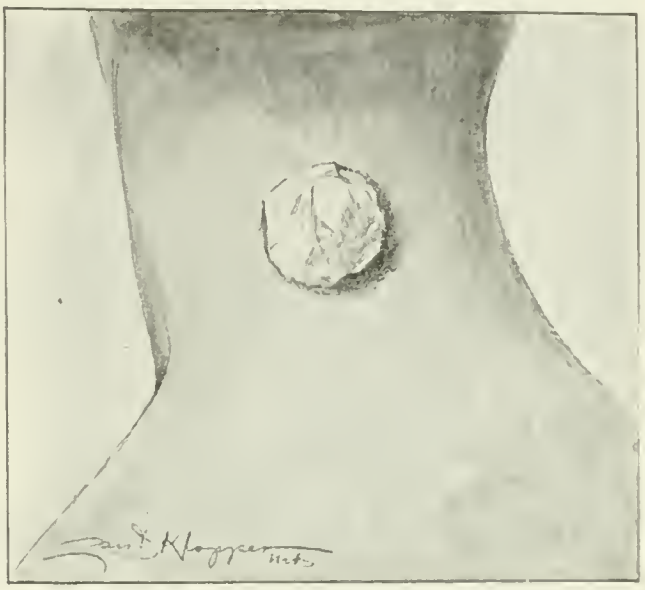

Fig. 4. Appearance of wound after removal of the carbuncle

dressing is applied, and the patient allowed to go, free from pain, and happy.

The Results Are Surprising

It is surprising to note how quickly all pain disappears, and how on that same night the patient, suddenly and entirely relieved, has his first good sleep in a long while. Another remarkable fact is the rapidity with which some of these very large cavities fill up, as well as the small scar left, even if the carbuncle removed measured as much as two inches in diameter.

The operation here described is performed so quickly that it causes very little pain, even without any anesthetic. Of course, the knife must be very sharp to be able to do this rapidly. Another reason why there is not much pain is that

the patient has already suffered so much that the cutting only diverts his mind from the atrocious pain he has been suffering during the existence of the carbuncle. I have performed this operation, for more than twelve years, even on dispensary patients, who as a rule are nervous, and never have had to use a general anesthetic, although occasionally I have employed a spray of ethyl chloride with patients who were extremely nervous.

Avoid Local Hypodermic Anesthetics

Neither cocaine nor any other such local anesthetic that is injected hypodermically should ever be used, and for two reasons: First, the pain caused by the hypodermic needle is equivalent to the pain undergone in this operation. Secondly, the needle spreads the infection. If cocaine is used at all—which to my mind is folly—then it should be injected far away from the site of the carbuncle, so as to avoid all chances of causing a fresh infection.

The after-treatment consists in dressing the wound every other day at first. Incidentally it will be found that each day the amount of iodoform gauze necessary to fill up the cavity is less than before, showing how very quickly the large wound fills up.

The ordinary-sized carbuncle is completely cured within two weeks, which is certainly a gain over any of the methods heretofore described. Besides, it must be a great satisfaction to the patient to be relieved of his pain almost at once without taking any narcotics, and to be able to go about his business as if nothing was troubling him. Of course, in connection with the treatment, these patients may need laxatives, tonics, or other treatment.

The Problem of Quackery: A Symposium

EDITORIAL NOTE.—Much interest has been shown in the articles on "Scientific Medicine Versus Quackery" which appeared in this journal, running through several issues, earlier in the year. The topic is plainly enough one of intense interest to most physicians, who are beginning to see that the policy of silence, of taking without answer and without reprisal the brutal assaults constantly being made upon our profession, is and has been a grievous error. The problem of quackery is one that our medical societies are beginning to discuss. Recently the Therapeutic Society of the District of Columbia devoted an entire session to this subject, and the following papers were presented by members and invited guests. We do not expect every reader of CLINICAL MEDICINE *to agree with all that is said by every contributor to this symposium; indeed, we do not ourselves agree with them in everything, but we sincerely hope that these essays may set you to thinking, and finally be the means of stirring you to fight your own battles "for the profession and humanity."*

SUPERSTITION AND QUACKERY

By E. L. MORGAN, M. D., Washington, D. C.

"Lord, what fools these mortals be !"

IN presenting this theme for your kind consideration, I must be compared to a chamois leaping from crag to crag, leaving you to bridge over, with many details, what seem to be a number of disconnected facts that have no bearing on this opening paper of our symposium this evening.

In the beginning was superstition, and the faith therein was of mankind. Therefore we should consider the cause and the effect. In our own generation it appears as heredity and, again, in some instances, as a reversion to the belief in the curative influence of the church.

The Element of Superstition in Medicine

Superstition, if not the grandparent of religion, is of very near kinship. Medicine is the child of religion, a branch lopped off the tree of theology. Cures were attempted and made by the shamans, the priesthood, sorcerers, astrologists, and others, not only in remote ages, but in our own era. It was

but little over a century ago that medical students were still required to pass an examination in astrology. Superstition is a heredity, a mental condition, which has, through the blood, been handed down to us and, like our shadows, is perpetually our companion in this vale of tears. We are all credulous and superstitious, we are permeated with this mental condition, knowingly or unknowingly. It is as natural to man to fear or to venerate something as it is for a duck that has been hatched out by a hen to take to the water.

Therefore, confidence or faith is a common attribute of superstition as well as of religion and medicine. People still believe in magic. In ancient Greece, pythonism played its part in the history of the healing art. The necromancer, or thaumaturgist, was supposed to possess great power for good or for evil. We, today, believe in chiromancy, and consult gypsies. The primitive doctor, besides charms, uses chironomy in the treatment of disease, that is, many gesticulations—pantomimes—to drive off evil spirits; like ourselves, he employs many methods of treatment.

There seem to be two classes of "Indian medicine-men"; one, the quacks, who deal in occult medicine and are in the profession for what they can get out of it financially; the other, who set bones, cure snake bites, dress wounds, and use native medicines, herbs, etc., these being the true physicians.

We, ourselves, believe in ghosts, and have believed in witches not so long ago, and the divining rod is still in vogue to locate hidden streams of water. Our colored population believes in "seeing evil," or second sight.

The Korean attributes nightmare to an unfriendly spirit who is spitting on his stomach during sleep. The Fijian considers his shadow the "dark spirit who descends into hell." His other shadow, i. e., reflection, seen by him in the water, is supposed to stay near the place he dies—so to speak, the devil and a guardian angel. A savage seeing his image reflected in a looking-glass said, "I can see into the spirit world." Indians believe their shadows are their souls—suggestive of the x-ray. One sick Indian, on recovering, was warned not to expose himself to the sun, "that his shadow was not well settled down on him."

All over the world, seers, magicians, astrologers, prophets, priests, as well as physicians were all superstitious; they all believed in the virtue of charms, visions, sacred springs and the holy waters, sacred relics, ceremonial processions, sacrifices, rituals, noises and sounds, and much more of this nature; they believed that demons caused sickness and that witches exerted evil influences, and so on without end. Medicine was permeated with superstition and questionable practices. Powdered skulls, powdered gems, human blood were considered valuable remedies; the starry ointment of Paracelsus was made with human fat, and was used to dress wounds—in fact, it was not necessary to do even that, for, if the injured person lived at a great distance it was thought sufficient to smear it on the dagger that inflicted the wound. Cramp-rings and such like charms were believed in by reputable physicians. And in the face of all this, there were quacks, so called, even in those days.

Judge Not Hastily

This being the case, should we not, then, throw the broad, protecting mantle of charity over present-day superstitious systems and persons practising the same? Should we not look into the mirror, to see ourselves? We laugh at our ancestors, but others, in their turn, some day will laugh at us. Is our system of today permeated with superstition or not? Are we giving the public fairy tales of medicine or not? Think of the untold thousands of pages printed in the past, amounting to many volumes, not worth today the paper it is printed on, save as a matter of history. Many of these authors, who made reputations, good livings, and often acquired money in their day, in our age would be in jail or end their careers on the scaffold.

Metallotherapy is an old practice. Aristotle, Paul of Aegina, Paracelsus, and others employed this method of treatment in the most diverse affections. Then mesmerism appeared on the scene of conflict. This magnetic fluid (magnetotherapy) interested many physicians. Quacks reappear and

disappear from time to time like winter snows, while of the dupes there is no end.

Finally, in the arena of the scientific medical conflict of 1776, Dr. Elisha Perkins of Connecticut introduced his marvelous "metallic tractors," used principally in the treatment of local inflammations and other of diseases. It is said there was such a demand for them that it was at one time hard to procure the instrument. Physicians in Copenhagen endorsed his method, while in London "a Perkinsan Institute was established for the treatment of the poor." A few years after Dr. Perkins' death the "metallic tractors" disappeared from the medical stage of action. Haygarth of Bath obtained similar results with his wooden cylinders. In Charcot's magnets the principal factor was suggestion. Hypnotism has its many friends. Faith-cure, Eddyism, etc., are now all the rage.

Intellectualism and Credulity Not Correlated

It seems strange that so many cultured as well as ignorant people are carried away by every new "pathy," "ism" or religion. Learning, or ignorance, does not make men crazy. Neither are they superstitious because they are highly cultured or less learned. Faith and superstition are separate and independent factors in our lives.

For instance, Voltaire, in his "Philosophical Dictionary," article, "Common Sense," says: "The Arab, who, besides being a good calculator, was a learned chemist and an exact astronomer, nevertheless believed that Mahomet put half of the moon in his sleeve." That is to say, in the age in which the Arab lived, was cultivated and learned, he should have known better. Our religious views can in future centuries be likewise criticized. Are not the morals of one age the vices of another? Do we, or do we not, interpret the Scriptures according to the philosophy of the age in which we live?

Spiritualists often give therapeutic advice, and it is a rank fake. So with all other socalled occult sciences. The clairvoyants claim to tell us much. The world is credulous. We have much to learn—the probabilities or possibilities of science and medicine offer us inviting fields.

Here is an extract from "An Outline of Theosophy," which quotes from "Clairvoyance, p. 88": "All that passes before a mirror, for instance, is reflected on its surface, and to our dim eyes it seems that the images make no impression upon that surface but that each passes away and leaves no trace. Yet that may not be so. It is not difficult to imagine that an impression may be left, somewhat as the impression of every sound is left upon the sensitive cylinder of a phonograph, and it may be possible to recover the impression from the mirror just as it is recoverable from the phonograph."

From much error in the past, we have obtained many valuable facts, and the same will be the case in the present as well as in the future. It is astonishing how the highly cultivated men and women are continually pursuing fads of medicine and quackery. If knowledge is power, in many cases it works injury to the possessor thereof.

I believe there is some good in osteopathy. As a rule osteopathists make no diagnosis. They get cures sometimes as a result of "suggestion" or directly of massage. As a profession, osteopathy is a humbug, has no advantages over ordinary massage. If there is anything the average doctor is ignorant of, it is massage treatment, and there is where the osteopath gets the better of our profession.

Dr. Still's Claims Dissected

Dr. E. D. Barber, in his work on "Osteopathy," writes as follows concerning Still's claim that he discovered the fundamental principles of a new science:

"We must differ with him as to the true cause of the results reached by osteopathy. Dr. Still believes nearly all the diseases are caused by dislocated bones, nearly always finding them and thereby winning for himself the name of 'bone-doctor'; in practice we never find a great number of dislocations, and by the same manipulations we effect the same cures as Dr. Still. If a bone is really dislocated and has been in that condition for years, and the dislocation cannot be reduced, but if the muscles are contracted and causing a stiff joint,

manipulation quickly relieves the patient; or by depressing the ribs the patient is led to believe the bone was dislocated.

"While we do not doubt for an instant that our classmates are sincere in their belief that in catarrh, sore eyes, deafness, and other diseases of the head, the atlas is dislocated and that they cure these diseases by setting the atlas, we believe that twisting, pulling and stretching the neck in a vain attempt to move the atlas stretches the muscles, thereby freeing the circulation and permitting nature to assert herself. Be they right or wrong, our readers can cure any acute disease of the head, almost instantly, by gently pulling on the head and rotating it in all directions; and so any chronic complaint, except cancer, total deafness or total blindness, by continuation of the same method.

"We all agree on one great point: that man is a machine, and that nerve-centers have been discovered upon which a pressure of the hand will cause the heart to slow or quicken its action; from which we can regulate the action of the stomach, bowels, liver, pancreas, kidneys, and the diaphragm."

Continuing, Dr. Barber quotes Still as follows: "Thousands of people are snatched from the grave by an application of these never-failing principles, which is proof positive that at last the keynote has been struck; that at last a man is found, and a school established, that can explain intelligently why certain manipulations produce certain results."

Restoring Circulation the Essence of Osteopathy

Dr. Barber then continues: "While we cannot go directly to the nerves at fault, we can, by manipulations, which will be fully described under their proper head, stretch the contracted muscles that are obstructing the current, whereupon, if the case has not become chronic, the bowels will immediately resume their functions and the excited kidney will cease to act so rapidly." Then he adds that it takes nature from two to six weeks to assert itself in all chronic cases. The massage treatment, which we believe is based upon strength and ignorance, effects remarkable cures by moving flesh and muscles in all possible directions, over the entire body. They unwittingly and unavoidably, if they are very thorough, free the right spot, establishing the circuit, thus permitting nature to assert itself.

"Still says that contracting muscles may interfere with the circulation, may interfere with nutrition, and so cause inflammation and disease. As a result of obstruction of circulation, there occur dropsy, inflammatory rheumatism, eczema, erysipelas caused by stagnant blood, and heart disease."

Having referred to the bones that "support the nerves" that control the blood supply, Still dwells on the muscles. "We state," he says, "most emphatically that the true cause of all diseases may be traced to some muscle which has contracted and for some unaccountable reason has failed to relax, thus interfering with all the forces of life. It is through working on these principles which we have briefly sketched that we have achieved results bordering on the miraculous." Thus he claims to cure asthma, consumption, in fact nearly all the ills that flesh is heir to.

Osteopaths make great pretensions as to the results they claim they get by their socalled system of medicine. They are but human, and finally will have differences of opinion, starting new "pathies." They will have numerous imitators parading under various names, with modifications and additions to their system of practice. All there is in osteopathy is massage and bold ridiculous claims for the treatment of disease.

We are not above criticism, as a profession; we have our therapeutic fetishes, make marvelous claims as to results, only a few years later, often, to repudiate the claims, therapeutic and operative, we so enthusiastically proclaimed to the world.

I have now, in this brief paper, touched upon osteopathy and allied practices, as assigned to me for opening this medical symposium. In closing, let me emphasize the fact that confidence, faith, suggestion, massage, and shall I not say, in some cases superstition, play the most important role

in this new practice, as it once did in our own profession, when our ancestors were yet shamans, and were often obsessed by some evil demon requiring the assistance both of clergy and doctor to effect a cure.

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[All fair-minded and informed men must agree in the main with Dr. Morgan in his strictures on the unreasonable claims of the apostles of osteopathy; but while he, himself, introduces the theme by admitting there is some good in this system of treatment, he does seem to go a little too far in some respects—although much of that is taken out of the mouths of other critics. The admitted results "sometimes" secured by osteopathists are attributed solely to suggestion and massage, but for the rest, the thing is declared pure humbuggery.

We are not defenders of "bone-setting" as a separate and exclusive method of cure—of course not; yet, osteopathy as taught today in the better-class schools and practised by its more intelligent disciples is not that crude procedure and doctrine that it originally was.

Medicine, we believe, owes much to these men, even as it is debtor to those charlatans who gave to the world hydrotherapy, electrotherapy, psychotherapy, and other special features of the healing art. Their claims have been wildly overdrawn, but that is something witnessed daily within our own ranks respecting drugs and methods. At any rate, they have forced upon our attention a valuable aid in our efforts to cure; as certified to, for instance, by A. Abrams, who, in "Spondylotherapy," says that "others, less scientific but more astute," have discovered that "manipulation of the spine" may cure conditions that "have failed of cure in the hands of experienced physicians."

Moreover, it must not be forgotten that "massage" and "osteopathic manipulation" are by no means interchangeable terms, inasmuch as the latter includes the former, but greatly exceeds it in range. The intelligent osteopath may be, at times, of greatest aid to the general practitioner, the two working hand in hand.—Ed.]

THE NONETHICAL REGULAR PRACTITIONER

By Guy W. Latimer, M. D., Hyattsville, Md.

WHEN one considers the subject of ethics in its broadest sense, it narrows down to the consideration of honesty. There are many physicians who consider themselves honest, and are so considered by the public, yet who are not ethical.

It is not easy to define the term ethics in a single phrase. The term is derived from a Greek word signifying "one's own doing," and that probably most accurately defines our present-day conception of ethics, for one's own conscience can be the only guide in ethics, especially as applied to physicians. Ethics, originally, meant character. The treatise of Aristotle dealt with its good and bad qualities. Ethics of today deals with the good of the individual, not of the community, this belonging to politics.

Cooperation Between Physicians the Need of the Hour

Strange, is it not, that physicians, the most charitable of all men, most ethical toward others, are so often found wanting in the crucial test among themselves, and in this respect have become the laughing-stock of the world. For this, there are two great causes: human weakness, and the physician's peculiar isolation in contradistinction to organization. The consideration of the first carries us back to childhood, when our mothers tried to teach us truthfulness, charity and honesty, for without these no man will be ethical. When we hear an attack upon a fellow physician, it is our duty reasonably to defend him by word and manner. I say manner, for at times silence is more damning than words. Do unto others as you would have them do unto you under similar circumstances. Remember, the accused is not present to defend himself and the evidence is generally distorted and incorrect. It is much easier to see a crook in a line after it is drawn than it is to draw it straight. Every disparagement upon a physician of good standing—and it is only of these that I am now speaking, for the

quack has already been referred to—is a disparagement upon the whole medical profession. Each person that looses confidence in one physician proportionately looses confidence in the whole profession, and each individual thereof suffers as a result.

Here it is that we need organization to bind us closer and to teach us that our interests are mutual. The lack of this organization makes us peculiarly isolated, each man feeling that his interests are entirely separate from those of his neighbors. As long as this condition exists, it is but human that he stoop either by word or by silence in disparagement of his colleagues.

The old custom of idol-worship of physicians is largely responsible for our present condition. It made him feel that there were no others as good as he and he must in turn make himself appear to them in such a light. It is obvious that such cannot be done and break square with our colleague. I do not mean to detract from the regulars—far from it; I have the most profound respect for them; but I believe that closer association of physicians and frequent consultations and cooperation of its various specialists has very materially improved our ethics.

There may be some men unethical for pecuniary reasons solely. It is no more excusable than is dishonesty because of poverty. I feel truly sorry for the man who is deserving and who can not make a living. Yet I do not excuse him for theft either of another's money or his patients; and an unethical practice is nothing more nor less than theft, and I cannot conceive of an honest man being unethical. It is often from this poorer class that the criminal abortionist first starts. He is offered a large fee and cannot resist the temptation, and then his downward course is rapid. Just as a bank-clerk who begins to take a little, but soon is a great defaulter. Still, a large number of this class deliberately choose this work, just as the professional swindler chooses his calling for its large profits. Statistics show that, as a rule, the physician abortionist had poor educational advantages, hence is generally poorly equipped to do scientific work and fails in an ethical competition. But, please, let me add here that the great majority of abortions are performed by midwives.

The Family Physician Must Not Antagonize the Specialist

An antogonistic attitude between the family physician and specialist is conducive to poor ethics. The sooner they both realize that one is dependent upon the other, the better for both. The family physician should call assistance as soon as there is a grave condition impending, unless circumstances make it inadvisable. He should not wait until the patient is moribund, for then it is only too often said, and sometimes in truth, that had assistance been obtained earlier, the patient could have been saved.

The specialist should not forget the rights of the family physician, however, but which they only too frequently do. It is neither becoming nor necessary for the consultant to appear as if he were all-important. He should be to the attending physician as reinforcements are to the general in battle.

When the patient has passed from the medical to the surgical field, the surgeon should remember that the clinician is of valuable service to him, and it is only fair that the first physician should be shown consideration in the treatment prescribed. When the clinician who has watched a case for months and has a surgeon in consultation upon some point, then to have the case practically taken out of his care, and some radical departure made in treatment without due consideration being given the family physician, is not good ethics. It is probable, in the case of the average mortal, after such an experience, that he is reluctant to have another consultation. The question of fee-splitting should receive more consideration than my time permits. I only mention it to condemn it.

Emergency and Ad Interim Services

When we respond to an emergency call to see another's patient, we should exercise the greatest care that nothing be said to arouse doubt in the minds of the family, as to the proper management of the case.

The question of relieving each other at times when for one reason or another such relief is necessary is a difficult problem. Every physician who can possibly afford it should take ample vacation, during which time the physician caring for his work should be doubly bound to make no breach of that trust, for under these circumstances so very much mischief can be done by an indiscrete word; at these times he should strictly hold his tongue.

The Professional Hog

Those physicians having very large practices are often like the old fable of the dog in the manger. They attempt to manage more cases than can be fully cared for, and thereby prevent some other equally capable physicians, though less employed, because of youth, from obtaining the work. This is not fair to the profession, to the patient, or to the overworked physician. It reminds me of the man who has lots of land but can't obtain labor to cultivate it, and makes less from it than his neighbor who has not more ground than he can properly cultivate. Sooner or later these overworked men fall behind in their professional ability and, like uncultivated ground, become derelicts to progress, for the public still hold their opinion as infallible. Many socalled chronic incurable patients are permitted to continue in their suffering because some too busy man does not take the time to work on them, while some younger man would gladly do the work, to the honor of the profession and gratitude of the patient.

To sum up, let me say, every physician should at all times be a perfect gentleman, but to be a gentleman, he must be honest; and if he is honest, he will be ethical.

NONPROFESSIONAL SUGGESTIVE THERAPEUTICS

By D. Olin Leech, M. D., Washington, D. D.

NONPROFESSIONAL suggestive therapeutics is manifested in that diabolical fetish, Christian science. It is without doubt the most unchristian, unscientific dogma or cult that has been perpetrated upon mankind in modern times. The teachings of Christian science, especially as relating to health and disease (as shown by Mrs. Eddy's own words as published in her standard works), are, to say the least, fantastical, and her basic principle is false.

The standard authority of Christian science is "Science and Health, with Key to the Scriptures," which Mrs. Eddy was nearly eight years in compiling. The first edition of that book appeared in 1875, and it has run through two hundred and ninety editions of one thousand copies each. The history of Christian science dates back to 1866.

What Does Christian Science Teach?

For a definition of Christian science, it is sufficient to quote one that is generally used: "The foundational truths of Christian science are the reality and allness of God, the unreality and nothingness of matter, the spirituality of man and the universe, the omnipotence of God, the impotence of evil. The demonstrative actuality of Christian science essentially distinguishes it from all other religions of the age."

Now listen to what Mrs. Eddy has to say as to physical healing, quoting from "Science and Health with Key to the Scriptures": "The physical healing of Christian science results now, as in Jesus' time, from the operation of divine principle, before which sin and disease lose their reality in human consciousness and so disappear as naturally and as necessarily as darkness gives place to light, and sin to reformation. Now, as then, His mighty works are not supernatural—they are the sign of Immanuel, or God-with-us, a divine influence ever present in human consciousness, and reflecting itself. Coming now again, as was promised aforetime, to preach deliverance to the captive (of science) and recovery of sight to the blind, to set at liberty them that are bound."

In "Faith and Works of Christian Science" (page 285) Mrs. Eddy says: "His three-days' work in the sepulcher set the seal of eternity on time. He proved life to be deathless, and love to be the master of hate. He met and settled all the claims of medicine, surgery, and hygiene with the power of mind, and mastered them

on this basis. He took no drugs to allay inflammation; He did not depend upon food or pure air to resuscitate His wasted energies." Further, she says: "Sin, sickness, and death are only as beliefs—they are error, an illusion to which there is neither reality nor identity."

A Challenge to Mrs. Eddy

Those who practise the cult are called healers. Mr. Wallace W. Wright, a brother of Carroll D. Wright (late U. S. Commissioner of Labor), in 1872 took a course under Mrs. Eddy, and went to Knoxville, Tenn., where he practised healing. He came to the conclusion that the whole thing was merely "mesmerism," and publicly challenged Mrs. Eddy to demonstrate her science by any of the following methods, which cover what she had professed herself able to practise: (1) To restore the dead to life again. (2) To walk upon the water, without the aid of artificial means. (3) To live twenty-four hours without air, or twenty-four days without nourishment of any kind, without its having any effect upon her. (4) To restore sight when the optic nerve has been destroyed. (5) To set and heal a broken bone without the aid of artificial means.

Mrs. Eddy did not respond; however, some of her students took up the case, but never proved any of her claims.

Is Called a Bluffer and a Grafter

Mrs. Eddy declared to Mr. Edward Everett Hale that she could, by an effort of the will, stop the flow of blood if an artery or vein were cut. This she never did. She was one of the greatest bluffers the world has ever seen. A very prominent minister describes an interview where she offered to let him cut her jugular vein, assuring him of her ability to heal the wound in his presence. Of course he was not fool enough to do it. She also assured her students that she could hold her finger in the flame of a candle without feeling pain.

She was a great "grafter." Thus, she set out to make money by charging large sums for her teaching—by copyrighting her book, constantly changing it, and requiring the use of the latest edition. By prohibiting the use of any book except such as she wrote, she promoted an expensive edition. She courted and encouraged great gifts to herself. She insisted that her healers should be well paid—which was to her credit. She said that "the patient who pays what he is able to pay is more apt to recover than he who withholds a slight equivalent for health." This is a good hint for us doctors to make use of.

To quote Mrs. Eddy further, in order to show the utter ridiculousness of her theory: "Disease is an impression originating in the unconscious mortal mind, and becoming at length a belief that the body, or matter, suffers. You may scoff at my declaration, that mortal mind produces lung complaint, and all other diseases, but I respect it. Sickness is a growth of illusion, springing from a seed of thought—either your own thought, or another's." To her students she emphasizes: "Remember that all is mind, and there is no matter. You are only seeing and feeling a belief, whether it be cancer, deformity, consumption or fracture that you have to deal with."

Some Other Humorous Citations

Mrs. Eddy's conception of physiology is laughable. Listen to this farrago, and then we will leave the subject silently to be meditated over:

"Physiology has a reputation in our land. Institutions honor it. To medicine it bows the knee. Aside from this, it remains to be proven whether physiology has improved mankind. We shall yet open our eyes to this fact, that calling on matter to remove what the human mind alone has occasioned is a mistake attended with grave consequences. Physiology is anti-Christian. It teaches us to have other rulers than Jehovah. The good it is supposed to do is evil, for it would rob man of a God-given heritage."

"Putting on the full armor of physiology, and obeying to the letter the socalled laws of health (so the statistics show), have neither diminished sickness nor lengthened life. Diseases have multiplied and become more obstinate. Their chronic forms have become more frequent, the acute more

fatal. There are more sudden deaths since our man-made theories have taken the place of primitive Truth."

"When there were fewer doctors and less thought was given to sanitary subjects, there were better constitutions and less disease. In olden times, who ever heard of dyspepsia, cerebrospinal meningitis, hay-fever, and rose-cold?"

"Because the muscles of the blacksmith's arm are strongly developed, it does not follow that exercise did it, or that an arm less used must be fragile. If matter were the cause of action, and muscles, without the cooperation of mortal mind, could lift the hammer and smite the nail, it might be thought true that hammering enlarges the muscles. But the trip-hammer is not increased in size by exercise. Why not, since muscles are as material as wood and iron? Because mortal mind is not producing that result in the hammer. Not because of muscular exercise, but through the blacksmith's belief, comes the strength of his arm."

"Is civilization but a higher state of idolatry, that man, in the nineteenth century, should bow down to a flesh-brush, to flannels, and baths, to diet, exercise, air?"

"I account it sinful and idolatrous to have more faith in drugs, diet, air, exercise, cleanliness, than in God, Truth, and Love, to keep the body harmonious, and make man undying."

"If half the attention given to hygiene were given to the study of Christian science and its elevation of thought, this alone would usher in the millennium."

"It is anything but scientific to diet, dose, and exercise, in order to aid the human body until the Divine Mind is ready to take the case."

HOW TO REMEDY THE EVIL

By Edward H. Egbert, M. D., Washington, D. C.

IT is a difficult matter to outline remedies for so vast an evil, in so short a time, so we will plunge at once into the subject, considering first the general means, then the more definite measures to overcome the evils considered by the preceding essayists.

We might consider these organized systems of medical practice, together with the various unorganized forms of medical fraud, as several independent foci of a malignant growth within the public body, each with its several metastatic manifestations: osteopathy, with its new growths; chiropractic and mechanotherapy; Christian (?) science (?), with its new- (?) thought, divine (?) healing, absent-treatment healers (?); and all the rest. Each of these is doing all that is within its power—and *they are powerful*—to destroy the confidence of the public in all that is sane regarding matters of public and private health.

What have we to offer as a remedy? There is but one, and fortunately this is a specific. Education is the only solution of the problem. To be effective, it must be broad, comprehensive, and must include all classes of people. So, first, then, let us consider

Education of the Medical Profession Itself

Medical students should be given a more general course of instruction; less time for unimportant and unprofitable laboratory experience, and more time for laboratory diagnostic methods, and for physical diagnosis and therapeutics in all of their phases. Let me make myself clear.

I am not decrying or deprecating laboratory instruction of a practical sort, in fact, I urge that more time should be given to this important phase of instruction; but three periods of two hours each in the laboratory and two periods of one hour each in the lecture and recitation room for one solid school-year is too much time to spend on such subjects as, for instance, comparative anatomy and embryology. The same holds true for much of the time spent in the physiologic and chemical laboratories; too much puttering experimentation along impractical lines. Thus take the number of hours spent in the development of so-called laboratory technic, and in "witnessing operations" at long range, and compare them with the number of hours given to practical didactic and clinical instruction in such valuable therapeutic aids as massage, hydrotherapy, thermotherapy, phototherapy, electrotherapy, sug-

gestive therapeutics, dietetics, and the many other valuable methods of treatment so successfully exploited by the quacks.

As one of the measures to adopt in our assault against the stronghold of quackery, let us give these means the consideration they richly deserve both in the curricula of our colleges and in the meetings of our medical societies, so depriving the public of the incentive for straying off to the charlatans.

At present many physicians who fail to appreciate the value of physiotherapy will twit a brother practitioner for availing himself of the use of some of these agents, while in the meantime people are scrambling over each other to place themselves in the hands of the fakirs, who, using some one of these methods of treatment as a cure-all, will frequently benefit their patients, meanwhile rendering them inimical to the regular medical profession as a whole. How often it is the case that a little massage combined with a liberal dose of suggestion on the part of an ignorant quack—yet which is nothing but suggestion, pure and simple, though dressed in a pseudoreligious disguise—will cure a functional disease that has not received benefit from several well-known and most excellent physicians.

Educations for the Educators

Clergy, college professors, school-teachers, magazine and newspaper editors, and others of learning are, as a class, no exception to the rule of ignorance of the lay public concerning health and disease. Interesting lectures and pamphlets dealing with the sociologic phase of disease and its prevention, and pointing out the disaster following in the wake of ignorance, superstition and quackery, and the need of an educational campaign concerning preventive and curative medicine will accomplish a vast amount of good.

Education of the Legislators

With bills before the legislative bodies of many of our states, recommending the recognition of osteopaths, chiropractors, naturopaths, and what not, it is expedient that tactful measures be promptly adopted to make plain the pernicious effect on the commonwealth, following the legal recognition of such false systems of practice. Great pressure is now being brought to bear upon our state and national legislative bodies for the promotion of legislative enactment of measures extremely injurious to the profession and the commonwealth.

Representatives and senators alike are being informed as to the status of scientific medicine by such organizations as "The League for Medical Freedom," the latter a diabolical coalition of irregulars, osteopaths, chiropractors, and the like, mind-over-matter-so-nothing-matters ignoramuses, quacks and fakirs of all kinds and of all degrees, proprietary-medicine sharks and a few thoroughly good, well-meaning souls, who, having harkened to the hypocritical song of these harpies, have been lead into the belief that regular physicians are, in the main a lot of dope-slinging hop-heads, banded together in a great "medical trust," bent on provoking "class legislation," in order to further selfish ends, and having a system of ethics which they believe is in reality a sort of code of "honor among thieves."

Let us, then, point out the need of laws for rather than opposed to public and professional welfare.

Education and the General Public

The most effective means to attain this end would be through the daily press. But the press is blind to right and wrong when it comes to sacrificing advertising space occupied by advertising quacks and patent-medicine crooks. The yellow species are especially to be condemned. When the religious press will stoop to such "accessory-to-the-crime" means of "making expenses," we naturally can not expect much of the lay publications. In fact, we must anticipate their allegiance to the "interests" in the coming reform, by reaching the public through other channels. I know of only one daily paper that ever entered into reform measures of this sort. *The Cleveland Press*, a few years ago, exposed the method of the advertising quack and drove every one of these vultures out of the community, although it cost it, as well as the

other local papers, something in the way of advertising space.

The majority of newspaper men, I am sure, are not so black as they have been painted; ignorance is the keynote. So, until they are brought into a realization of the untold suffering they are actively promoting, on the one hand, by giving publicity to the wares of a class of men unfit to black the boots of a sneakthief, and, on the other hand, passively permitting such a blot on civilization by failing to make exposures, then, and not until then, can we expect aid from them.

The Public Is Thirsting for Knowledge

Another means of getting the public ear (and personally I believe that at present it is the most effective means we have at our disposal) would be the publication of a monthly magazine devoted to the interests of promoting public health. There can be no doubt as to the demand for such a publication, else the people would not at this writing be supporting at no mean profit to the owners, more than eighty socalled health periodicals. The people ask for bread, and receive poison, for much of the advice offered in these journals is absolutely damnable and fiendish. Some of it, too, might be considered humorous, it is so silly and foolish, so manifestly false, were it not for the fact that such stuff is being eagerly read, and accepted as good, by thousands, yes, hundreds of thousands of the great army of unthinking people.

These periodicals are either deliberately or, through ignorance, incidentally destroying the confidence of hundreds of thousands of our citizens, of better than ordinary education, in all that is sane concerning health and the prevention and treatment of disease. Some of these denounce the use of all forms of therapy, except some distorted form of psychotherapy, which is extolled as a cure-all and a prevent-all, while, paradoxically, giving space—at so much per inch—to the alluring invitations of the vilest class of vultures that have ever disgraced human society, the mail-order quacks and the absent-treatment fakers. Gentlemen, is it not time to be up and at them?

We have often heard it argued that people who had no better sense than to believe such stuff and to patronize the "fool-killers" richly deserve to be stung. Should we, then, allow our children to play with firearms, reasoning that, if they are such fools as to play with them, they ought to get shot or to shoot their playmates or bystanders, and that, if injury be done, they would learn wisdom thereby, and if someone were killed we should be better off without them. No, we know that they are not fools, but simply ignorant of the danger of firearms. Not only do we teach them of the danger but we also put the gun out of their reach! That is the situation exactly. These people are not fools. They are simply ignorant concerning medicine, and because they are not fools, they realize their ignorance and seek light. Naturally, they read or listen to what is conveniently procurable from the newsstand, the publishing house, and the lecture platform.

We owe the people a square deal in health education; we owe our children a good education; we owe to ourselves and to our patients the advantage obtained by occasional postgraduate courses; we owe them and ourselves the benefit of an occasional outing, of more books, of better equipment; yet few of us can afford these things, excepting the former.

In the meantime, because of our dignified (?) silence, enough good money is being wasted for bad medicine, bad treatment and bad advice to afford us all these things, and more. Think of it, $3,000,000 is being spent in this country annually, as the advertising budget for "consumption cures" alone!

Suggestions for a Popular Health Journal

Let us, then, publish a journal to be sold at the news-stands for, say, five cents a copy, or at the rate of fifty cents a year; the editor-in-chief to be some sound-minded man like Dr. William J. Robinson, the present president of the American Society of Medical Sociology and the editor of *The Critic and Guide.*

Through such a medium, sound advice concerning prophylactic medicine could be

given. The booze "tonics" and proprietary medicines of this type could be discussed. Cancer and consumption "cures," medical "institutes," mail-order quacks, "scientific-food specialists," and quacks and fakirs of every description could be exposed. The limitations of massage, manipulation, of diet, of psychotherapy, under whatever name it might be called, could be defined. The disastrous results following legal recognition of the various one-idea methods of treatment, as systems of medicine, could be brought to public attention. Interesting accounts of the triumphs of science in the field of medicine, such as "How Medical Men Are Building the Big Ditch," together with "little journeys to the homes of masters of our profession" would give a touch of human interest and turn contempt on the part of some to respect for modern medicine. Tell the mothers how to care for their babies and how to cook for and nurse the sick.

Oh, the thousands of useful facts that could be told and the lessons that could be taught authoritatively. The value of such a journal both to public and profession is beyond estimation.

Public Meetings

We believe that much can be done from the lecture platform by interesting the more educated class of people. These lectures should be given by men solely engaged in such work and by others who could not be accused of having a personal ax to grind, such as government medical officers, health officers, and others not engaged in clinical practice among the public. Not only would such meetings tend to alter the view of the audience regarding medicine (for it seems that this class is ever prone to run after false gods of healing), but they would enlist many in an effort to help in the general educational campaign.

Personal Instruction

More than one might think possible can be accomplished by personal instruction on the part of each of us as individuals, teaching those with whom we come in contact. The way is frequently opened for us to discuss these subjects. Often we are asked concerning some cult. It does not suffice to dismiss the subject with a high and mighty assertion that So and So is a quack, or that such and such is a fake. Such an attitude is more likely to create the suspicion that we are jealous, professionally, of someone or something, and that we have reasons to be so. It is our duty to acquaint ourselves with the subject, and then, as opportunity is afforded, to explain the exact nature of these cults, and, while admitting the modicum of good in each, based on some well-known method of treatment (not an all-sufficient system of medicine), to point out the fact that every case of someone cured, benefited or surviving such treatment is noised about, because the method is unusual, while a patient not benefited is likely to say little about it, lest people remind him that it is a case of "a fool and his money easily parted."

Real physicians are guiding to successful recovery desperately sick people, every day, and it is taken as a matter of course. An osteopath or one of that class may carry a case of typhoid fever along to recovery with proper diet and nursing, and the event is heralded abroad. Should complications arise, a physician is called to shoulder the responsibility.

Disabuse the minds of the people of the false idea—and most of them have the notion, fostered by the irregulars—that the regular physician is an "allopath," that he is narrowed in his judgment by creed and doctrine. Teach them that rather the reverse is true—that regular medicine is the only all-embracing method of practice, hampered by no preconceived ideas, and that, as a scientific school, it can hold no dogma concerning either the cause or the treatment of disease. Convince them that such beliefs as that "all is mind," that "all diseases are due to displacements of bony or cartilaginous structures," or any other doctrine that accepts one cause or one cure for all disorders are investigation-destroying, progress-hampering beliefs and are a positive curse to mankind.

To Sum Up

We believe that the treatment of disease by the followers of the unscientific cults,

the medically half-educated, and the unethical doctors of medicine is a curse to the nation. That patent medicines are causing as much, if not more, harm than does the liquor traffic, and that these men and women are exerting a pernicious influence, not only over those seeking their aid, but upon the public at large. That they stand for retrogression in preventive and curative medicine, and that their only useful purpose has been that they have demonstrated how much can be accomplished, in some cases, by the use of psychotherapy and other physiotherapeutic means, and how very little they really can do for cases beyond the limitations of such therapeutic measures.

We believe the rational method of overcoming this evil lies in an active educational campaign.

We believe that it is of the utmost importance to hasten the correction of existing legislative measures, because, as they now stand regarding medical practice, they are a hindrance of the fit and a protection of the unfit.

We believe that it is the privilege, the peculiar right, and the duty of the regular profession to enlist, as a body and as individuals, upon a general educational campaign, and to do it now.

QUACKERY AND MEDICAL EDUCATION*

By Tom A. Williams, M. B., C. M., Washington, D. C.

THE mysteriousness of medical science and art is fast passing away; and it is high time. That this happy event is being accomplished against the opposition of a large part of the medical profession merely shows the tenacity of conventionality. The aloofness of these men only perpetuates the lay ignorance, which is the feeding ground of the medical charlatan without or within the profession.

Some men say that instruction in hygiene should be received only from the family doctor. As it is prevention at which we aim, it is hard to see how this could be effected by a doctor who is called in only after the patient is taken sick. Besides, his words reach only a few people, whereas the printed word, delivered with but little more effort, may reach thousands. Again, opinions vary, and the family doctor's personal views may conflict with those of some other physician's and the patient not only be puzzled, but lose confidence in the medical profession.

Instruction of Public by Doctors Collectively

These objection are all met by the instruction of the public through the collective effort of medical men in cooperation with newspapers and other periodicals.

A feasible plan is as follows:

A medical association appoints a committee of about a dozen men and imposes upon them the duty of compiling each week a short, clear statement in simple language of the accepted views of medical science upon some question of hygiene concerning which the public requires accurate information. The responsibility for the statements is then not that of one man, who may impose himself upon an undiscriminating public and may lead them to error perhaps for venal ends, but is seated in a set of selected men who themselves are responsible to their colleagues. Self-interest and inaccuracy are thus eliminated in the greatest possible degree.

A plan of this kind would add enormously to the prestige of the medical profession by preventing exaggerated ideas on the part of the public as to the essentialness of differences of medical opinion. Scoffing at the ephemeralness of medical theory would then diminish; for theories still under discussion would be exploited only by men whose irresponsibility could be authoritatively declared through an impersonal medium. No blow more deadly to the charlatan could be given than that of the authoritative contradictions to the pretensions of their advertisements which could be furnished in the health-columns.

The method is superior to that of establishing a health magazine under the auspices of the medical profession; for the newspapers eventually reach everyone, whereas a health paper is read by only a few interested people.

There is no doubt that susceptibility to the wiles of the charlatan has been nourished

*This and the paper following, by Dr. Williams and Dr. Owens—both invited guests—were in the nature of discussion, upon request by the Society.—Ed

by the thousands of socalled physicians who emanated from the sham medical schools—now nearly suppressed. These men could only live in an environment of lay ignorance. The practice of medicine was a simple matter when it consisted merely of giving some drug as an antidote to each symptom. Such men could not conceive the genesis of affections or the processes occurring in the body. Their education was neither broad nor deep.

Some Causes of the Rampant Charlatanry

But it is not only to these men that we must attribute blame for the arising of the charlatanry represented by the numerous special or exclusive medical cults. Had the pathogenesis of disease been more than mere guess-work, the absurdities of homeopathy could have received no adherence. At a later day, osteopathy and chiropractic would have had no opportunity had more medical men realized the nutritive influence of massage and the importance of reflex mechanical stimulations. A plea has been made for the retention of these special schools of practice, provided that applicants pass the examinations of the state board as to fundamentals of medicine. Only those who are ignorant of general practice could advocate such permission. In very few cases can a single mode of treatment be adhered to without detriment; and only he who has considerable experience in all modes of treatment is capable of pronouncing an opinion as to what mode is most suitable in a particular case.

This consideration is believed by many not to apply to psychological disturbances. So far in error is this contention, however, and so widespread is it (medical men otherwise apparently intelligent having, to my knowledge, referred cases to lay faith-healers) that I have recently taken pains to illustrate the fallaciousness of this belief by the recital of some cases which had been referred to me for psychic treatment, but which I found to be suffering from affections for which the therapeutic indication was physical and not psychological. In several cases, the mental symptoms were due to cardiac insufficiency, in some to arteriosclerosis, and in one remarkable example to a disorder of internal secretion; while organic nervous disease is often incriminated

The Necessity of Psychopathologic Knowledge

A profound knowledge of psychopathology is necessary for the diagnosis of some few cases; but a considerable number of people could be safely managed by general practitioners who would take the trouble to obtain a knowledge of the diagnostic criteria of psychogenetic disorders. It is unfortunate that the presentations available in the textbooks are, up to the present, entirely inadequate to this purpose. But medical periodicals are now devoting much attention to this aspect of medicine.

Of course, there are ill-digested theories, and many have rushed in where angels fear to tread. But a critical-minded man should not for long be deceived by the fantastical or ill-considered. How many medical men can offhand refute, to the satisfaction of a logical lay man, the false notions of the Christian scientist? Do we often find a doctor able to explain clearly the meaning of hypnosis? What conception of a psychogenically contracted muscle has the average doctor? Regarding hysteria, how many physicians have transcended the inconsequential farrago compiled in the textbooks? When the Christian scientist's remark, that a boil itself is not painful, was related in a meeting of medical men discussing quackery, much laughter was heard. The spirit of derision will not refute the arguments of Christian science. In this case they are right. If you do not believe it, cut the afferent nerve from the boil, and then where is the pain?

Doctors' Mendaciousness Fosters Quackery

Another medical attitude which fosters quackery is mendaciousness to patients and their friends. My experience has shown me that the doctor is *expected to conceal the truth.* Hence, all his statements are habitually received with qualifications. Were mutual confidence between patient and doctor the rule, untold suffering might be obviated, especially among the people with fine susceptibilities. Nowadays, many

patients who suffer from false beliefs regarding their condition cannot have them removed by their physician; for the patient is convinced that the doctor is only lying to him in order to allay his alarm.

Absurd credulity regarding physiology and medicine is not confined to the poor or uneducated. The socalled higher education gives no immunity from this; for it often takes people away from truth and nature and directs them toward the fallacies of metaphysics, the vagaries of false art, and the sentimentality of an untrue literature.

The key to lock the door on the psychological quack is for the patient to know himself. This knowledge he can best obtain from a physician who has instructed himself in the psychology of the morbid and the healthy, and who has learned to analyze his patient's mind and does not fear to impart to him the truth which he seeks. His object should not be to inspire faith, but to impart knowledge and to secure healthy mental action.

* * *

Note 1. "Faith Healing" is a misnomer; faith never heals in itself, but it may prevent noxious influences of mental depression.

Note 2. How many physicians attempt, or are competent to investigate, the pretensions of those they employ to administer massage?

THE DOMINANCE OF SUGGESTION

By W. O. Owens, M. D., Washington, D. C.

IT is amazing to see how we, one and all, are dominated by suggestion. The quack and the patent-medicine man both depend upon it absolutely; all medical men use it every day in their work either consciously or unconsciously; more than four-fifths of all socalled cures by the quack, the patent-medicine vender, the medical man, the priest, are neither more nor less than a result of the application of the laws of suggestion done knowingly or, as the result of training, unconsciously. But for this, the quack, the patent-medicine man, and more than two-thirds of the medical men would go out of business. The cure for these evils is to educate first of all ourselves, and then the people as fast as we learn.

There is at present a very strong movement looking to the education of the people, and through that to an improvement of the general health conditions. The large life-insurance companies are beginning to recognize the fact that an increase in the average length of human life, particularly that part of it known as the productive period, is not only of very great value to the state, but also results in a very large increase in their own earning capacity. The very natural result is that many of these companies now maintain a medical department for the purpose of examining the risks, and for the further purpose of advising their policy holders concerning their health and how to protect it, some of the companies going to the point of issuing a publication which they send to all of their policy holders. They are awakening to the fact that all legislation looking to the betterment of public health, are measures also very much to their advantage, and in some instances they have instructed their agents to assist such measures.

The only way to eradicate the fakir is so to educate ourselves that we can explain fully to our patients, tell them exactly where and what the difficulty is and the result that is to be produced, and then to produce it.

The Fakir Depends on the Power of Suggestion

The fakir depending on suggestion for his results makes his suggestion, the patient accepts it, and the cure is made. His failures never come back to plague him. He makes his suggestion in positive terms, and depends on the fact that the body will very generally throw off infection if given a decent chance.

Recently one of the most intelligent men I know of went to one of these men with a pain which had continued between his shoulders for several years. This man worked over him for two or three weeks and at last succeeded in reducing a partial dislocation of his third dorsal vertebra, and he has been free from this pain two years. What will you call this, suggestion or a reduction of a dislocated third dorsal?

The Limitations of Psychotherapy

By A. L. BENEDICT, A. M., M. D., Buffalo, New York

EDITORIAL NOTE.—So much has been said in extravagant praise of the possibilities of "suggestion," or psychotherapy, that it is refreshing to read a cool, level-headed expression from the other, and more rational, viewpoint, such as that presented this month by Dr. Benedict. Every physician should read this paper.

FOR a time, the medical press teemed with articles on the subject of psychotherapy, but, for a year or more, comparatively little has been heard of it. Fashion in medical study is to be deplored. When a subject has been so thoroughly discussed and observed that it is, humanly speaking, thoroughly understood, it is proper to relegate it to textbooks and undergraduate lectures. It can scarcely be claimed, though, that this point has been reached with regard to psychotherapy. If it is of value, it should be kept before the profession. If not, it should not be laid to rest without a thorough necropsy, that we may understand why it has died out. Such information will be of assistance in enabling us the better to judge of the next popular fad.

Diseases may be classified in three great divisions: psychoses, functional disturbances, organic lesions. It is, however, difficult to distinguish accurately among these classes, either in the sense of diagnosing an individual case or in that of establishing a definition.

The Three Divisions of Diseases Defined

Without troubling to elaborate a formal definition, but using plain terms in preference to technical ones, it may be said that a psychosis indicates an imaginary or reasonless condition. For example, the patient complains of a pain which does not exist; of diarrhea, indigestion, cough, weakness, faintness, and so on, for which there is no cause and which may be relieved if the patient can be made to think that the trouble is mental rather than physical. It may even be said that a psychosis is a moral condition—a lie told by his own brain to the patient himself and repeated to others and, perhaps, believed by others when he himself is half aware of his self-deception.

A functional disturbance may be either of two kinds: In one class of disturbances, no pathologic change is detectable in the organ concerned, and, so far as we can judge, no degree of improvement of histologic technic would demonstrate an abnormality in the organ itself, but there is an obvious disturbance of the efferent nervous stimuli or of blood supply or other supply of raw material. In some cases, the disturbance, functional so far as the primary organ is concerned, is plainly organic so far as the nerves, vessels or other tributary organs are concerned; again, no matter how far back we try to trace the functional disturbance, we reach no organic lesion. In the other class, including diabetes, heart block, hyperthyroidism, hyperchlorhydria, etc., the lesion is now pretty definitely understood, but we continue to use the term *functional* as a matter of convenience because of the direct importance of the primary disturbance of function and also, in some instances, because we can correct the functional abnormality without ameliorating the organic basis.

It can now be appreciated how functional disturbances, on the one hand, merge with those general disturbances which we term psychoses; and how, on the other, it becomes difficult to defend the policy of calling one manifestation of disease a functional disorder, while another is spoken of as a mere symptom. But, if a functional disturbance for which we in vain attempt to find an organic basis, following up the nervous, vascular and other tributaries of an organ, really has no organic basis, is it proper to hold that it is, so to say, genuine when it involves some single chemic or motor phenomenon of a viscus, while we

bring in the conception of a moral issue, a self-deception, when it is of more general nature?

Hysteria a Mental Aberration

It is, to say the least, charitable to suppose that the hysteric person, using the term broadly, owes his symptoms to some form of toxemia, substantially like that of gout, uremia, intestinal putrefaction, acidosis, general fevers, or of exogenic poisons such as alcohol, morphine, atropine, and so on. Or, on the other hand, we may, with equal charity, hold that the neurotic individual is so because his brain-centers are, in some undiscovered way, defective or poorly correlated, as in many cases of indubitable insanity in which the necropsy fails to explain the condition.

It is worth considering that practically every individual manifests the essential elements of hysteria and thus, potentially, may be considered to be liable to any symptom of a psychosis which is supposed to be amenable to some form or other of psychotherapy. Moreover, the indubitably insane person manifests the same symptoms, but in more aggravated degree and still less amenable to treatment. It is only a series of gradations, from the lack of self-control manifested by an imprecation or a tear to insanity, and somewhere about the middle is the vaguely understood condition called hysteria or expressed by various other phraseologies.

Chemical and Mechanical Factors Involved

It is equally important to bear in mind that the breaking point of self-control is reached in every normal individual by some conceivable degree of physical fatigue, mental strain, emotional stress, acting singly or together. It has already been implied that this breaking point is movable in the scale of resistance, and depends largely on purely chemic conditions of the bodily fluids, either due to poisons introduced from without or elaborated by bacteria within the tissues or cavities of the body, or produced by defective metabolism in various ways.

It is obviously a gross diagnostic error to consider as hysteric the delirium of typhoid fever, or of alcoholism of one form or another, or the manifestations of uremia. In the writer's field of interest, so called hysteria is often explained by an indicanuria, an excessive urinary acidity, an undetected hepatic sclerosis. From the mechanic standpoint may be mentioned the tugging on its nerves of a movable kidney or other prolapsed viscus. Gynecologists find many organic conditions which justify the early conception of hysteria, and of its name (derived from the Greek word for womb). Indeed, the results of gynecology among insane patients support the contention that insanity is, to some degree, merely a major psychosis. Other socalled hysteric states are due to colitis, either general or limited to the sigmoid, cecum, appendix, and so on, and a large school of physicians is of the opinion that colitis is essentially a neurosis, instead of being merely the cause of neurotic manifestations.

Sufficient illustrations have been mentioned of the dependence of a neurosis on a real chemic or mechanic state. The list, in its entirety, would be large and varied enough to warrant the conclusion that we are scarcely justified in employing the term hysteria simply because the exact mechanic or chemic excitoreflex cause is not apparent. It is merely a difference in degree that separates gross negligence in diagnosis from the detection of conditions requiring special skill, and it is highly probable that other mechanic and chemic causes exist which the profession as a whole is still unable to recognize.

Psychotherapy Can Not Remove Organic Lesions

It may be expressed as an axiom, that psychotherapy can not remove an organic disease, even if the latter is directly due to a psychic factor. No amount of suggestion and pacification, for example, can cure a hemiplegia excited by an attack of anger. A very wide range of organic lesions is due to factors which may be brought into action or inhibited by nervous conditions. Ruptures and embolisms of vessels produce widely different phenomena in different organs. The variety of lesions due to voluntary inhibition of evacuation of feces

and urine, to sexual perversions, to respiratory restraint and strain, the misuse of the organs of special sense, are examples of the extent to which prophylaxis is easily under voluntary control, while cure, by this or other means, is difficult or impossible.

Similarly, it may be laid down as an axiom that a definite chemic or permanent mechanic state is not amenable to psychotherapy.

Various extreme schools of psychotherapy, especially of charlatans, argue that, if a disease is caused by a mental factor, it may also be relieved by mental force. To this claim, there is no better answer than the exquisite irony of the old rhyme:

> There was a man in our town
> And he was wondrous wise.
> He jumped into a bramble bush
> And scratched out both his eyes.
>
> And when he saw his eyes were out
> With all his might and main
> He jumped into another bush
> And scratched them in again.

Functional Disturbances Amenable to Suggestion

On the other hand, it may be contended with equal propriety that any function, whether essentially chemic, motor or otherwise (if there be any otherwise), which is due to the maintenance of nervous stimulus or any lack of function due merely to the lack of such a stimulus may be modified therapeutically by securing the proper nervous effect, positive or negative, through psychotherapy.

This dictum is, however, subject to numerous practical qualifications, which it is extremely difficult to codify. One would be tempted to lay down the rule that a function normally under direct control of volition could be directly controlled by psychotherapy, and that a function controlled by involuntary centers could not be thus ameliorated. But such a rule does not stand the test of experience. For instance, psychotherapy cannot be directly invoked to influence, except very transiently, abnormal respiratory rhythm and frequency, urinary irritability, tremors and paralyses of the voluntary muscles. On the other hand, it can, to a large degree, though indirectly, influence cardiac rhythm and frequency, and even the state of the vessels, as manifested in blushing, syncope, and the condition of the cerebral vessels required for sleep.

Classification of Psychotherapy

Psychotherapy may be classified, according to the method of application, somewhat as follows:

1. A command, more or less emphatic, with more or less emotional appeal, threat, etc.
2. Explanation of the relation of extrinsic factors, state of mind, etc., to function.
3. Autosuggestion: (1) induced by ordinary suasion; (2) induced by hypnotism; (3) induced by permanent domination by some sort of religious or superstitious influence.

Let it be repeated that none of these forms of psychotherapy can directly modify an organic lesion, a permanent mechanic condition, or a chemic condition of relatively stable nature, especially if essentially extrinsic. All that can be expected is the control of a function of a labile nature. It is not impossible that such control may be obtained in spite of the persistence of an ineradicable lesion—much work may be got out of a partially disabled engine—and it is by no means strange that the subjective suffering of a perversion of function may be caused to be forgotten. Genuine relief may be expected only in cases in which the disturbance, traced to its ultimate organ, is functional throughout. Genuine cure may be expected only in accordance with ordinary operation of the *vis medicatrix naturæ* or of artificial therapeutic measures of other kind, favored by the functional relief or ignoring of subjective effects, and, so far as ultimate cure is concerned, psychotherapy can obviously act only as the symptomatic treatment of details by other means.

It is likewise obvious that simple command is not widely available as a therapeutic agent. It is available only for immediate effect—save as it involves the principle of autosuggestion by suasion—and mainly for the control of habit-spasms, to en-

force general emotional control, although syncope can often be prevented in this way. Attacks of aerophagia, gagging, psychic vomiting, some forms of irritative cough, or sphincteric weakness may be thus treated.

The second heading, psychotherapy by explanation of the relation of extrinsic factors, state of mind, etc., may require an apology. In a sense, the intelligent control of reflexes, by avoiding or purposely introducing exciting causes, is far removed from the ordinary conception of psychotherapy.

Forgetting, for the moment, problems of disease, we know that there are everyday acts so simple and generally understood that it is necessary to say only "Do," or "Don't," while others, more complicated, require also an explanation. An analogous relation exists between the simple disease-phenomena just mentioned with regard to which one may say, "Do," or "Don't," and gastric secretion, cardiac palpitation, certain states of high arterial tension liable to cause apoplexy, etc. To a considerable degree, such conditions may be prevented or, in so far as they remain purely functional, relieved by an explanation of the beneficial influence of a pacific state of mind, of developing an appetite, etc. In the broad sense, this is comprised under psychotherapy.

The Term "Autosuggestion" Not A Happy One

The term autosuggestion is not entirely beyond criticism. Many deny that one mind can influence another. Indeed, from the materialistic standpoint, such influence is an absurdity and, as language has developed everywhere as an expression of thought based on the opposite conception of mind, it is difficult to give verbal expression to our meaning without employing contradictory terms. Without going to the opposite extreme from materialism, and viewing mental phenomena in a superstitious light, it is still in keeping with ordinary experience to hold that, in some way, one mind does affect another. At any rate, autosuggestion, from the practical standpoint, implies a preliminary influence from the outside, the term *auto* signifying merely the ultimate object of producing a habitual discharge of nervous energy along certain channels.

Of the three forms of autosuggestion, that by simple suasion is the most generally available and the least objectionable. Just how the establishment of autosuggestion by suasion is brought about, must depend on circumstances and to a large degree on individual tact, also on the personal equation of the physician. Speaking personally, the writer would express a preference for a progressive suggestion, in keeping with the rationally expected progress of relief, rather than the immediate forcible impression on the patient's mind that such and such a symptom must disappear. Nine times out of ten, it will not disappear immediately or for several days and, not to mention the discounting of the physician's reliability, the fact that a symptom does not disappear, after the patient has been told and has been telling himself that it will and must, tends to inculcate the opposite autosuggestion, that it can not disappear. On the other hand, if the initial suggestion is of relief in degree, lessened frequence of recurrence and gradual improvement, this reversal of autosuggestion is not likely to be brought about in a patient at all receptive, even if no noticeable amelioration occurs for some time.

The Limitations of Psychotherapy

Another important point to be considered is the limitation of the possibilities of psychotherapy in general. It is useless to suggest the impossible. A rather amusing illustration of this point has lately come to the attention of the writer. A Christian scientist was suffering the agonies of an ulcerated tooth. Her little boy, bred in the tenets of that cult, talked to her against yielding to error and enjoined her to think of God, with the result that the good lady became so angry that she renounced Christian science.

Hypnotic Suggestion Is Dangerous

Hypnotic suggestion is something with which the writer has had very little experience, from the conviction that it is

rarely justifiable, on the ground that it virtually enslaves the individual and ultimately weakens the factors of self-control necessary to the cure. Another point to be considered is this: relief by hypnotism is the relief of a detail, and the very means employed tend to convince the patient of the reality and nonfunctional nature of the symptom. Hence, he is extremely liable to a recurrence of any hysteric tendencies in some other direction and with firmer conviction of the existence of an essential disease. For example, a clergyman, a man of high scholastic as well as medical education, was "cured" of hysteric aphonia by hypnotism. In spite of his medical training, he was firmly convinced that hypnotism had cured him of a definite disease, instead of a purely functional manifestation, and he gave public expression to his gratitude, partly to the doctors, partly to Providence. Imagine the further course of such a case—any kind of ache or pain or neurotic manifestation would be magnified and relief would become increasingly difficult.

Without going so far as to hold that in every case the physician should brutally tell the patient that his hysteric symptom is (qualified) nonsense, the writer feels that in no case is the cure complete until the patient is, somehow and sometime made aware of the essential nature of his complaint and of the importance of control by himself.

Autosuggestion and Christian Science

Autosuggestion by some sort of permanent domination of a religious or superstitious nature is, at present, best exemplified by Christian science, although it should be recognized that very similar results have been achieved for centuries in various countries, under religious influences of various types. So far as Christian science is concerned, it should be remembered that its numeric strength consists largely of persons who have had no occasion to make any serious therapeutic test, but who are more or less formally affiliated because the general social and religious atmosphere is pleasant.

So far as therapeutic tests are concerned, Christian science succeeds in three groups of cases: (1) imaginary ailments; (2) ordinary functional disturbances, amenable to any kind of psychotherapy; (3) organic diseases, usually of mild and very chronic type, in which symptoms may be ignored, as arteriosclerosis, interstitial nephritis, mild diabetes, moderate ocular deformities in which eyestrain is not great and in which the patient may readily persuade himself that he can see without lenses.

A little consideration will show that, in psychotherapy as in business, a systematized big undertaking has a specious advantage. Moreover, Christian science, unlike the private physician, is irresponsible at law.

The writer, as probably many another physician, has been amazed at the number of Christian scientists who have recourse to ordinary medicinal as well as surgical treatment. This inconsistency can often be blamed on a meddling relative or friend, or it simply is not explained at all. From the lay standpoint, it is not surprising, nor even unreasonable, that medical relief of, say, a mastoid abscess, or a pneumonia, or an attack of jaundice is regarded as of minor importance, as compared with insomnia due to no particular cause other than the establishment of a bad habit, or the annoyance of wearing glasses for astigmatism, or headaches due largely to habits of worry and bad temper, which cannot be cured by occasional visits to a physician.

Neither is it at all surprising that the actual subjective benefit secured from an association which holds frequent meetings, which includes a large social element and which acts almost continuously by the repeated suggestion of a large number of individuals, each forming a different contact, yet all with the same ultimate tendency, should be superior, in certain cases, to the effect of psychotherapy by a single individual, seen briefly and occasionally, in whose case the business element and the normal standard of objective, material methods is constantly before the mind of the patient.

Some Summer-Time Hints

Or Practical Helps for July Diseases

By GEORGE L. SERVOSS, M. D., Fallon, Nevada

WITH the advent of the heated term, we come in contact with maladies peculiar to the season. Owing to the extreme heat or humidity, many of the functions are interfered with. Early in the season the majority of us are prone to consume large quantities of new vegetables and fruits, in many instances a month or more prior to the time when they are really seasonable in the climate where we happen to reside. The eating of such food interferes to a greater or less extent with the functions of digestion and there is very liable to follow an irritation of the gastrointestinal tract. In some instances the fruits so taken are not as sound as they might be, and not infrequently do we eat fruits that may be infested with the microorganisms of putrefaction. The latter often set up an irritation of the bowels which may persist throughout the heated term, in many instances being followed by attacks of acute inflammation accompanied by diarrhea and other undesirable conditions.

Iced Foods and Cold Drinks

Early in the spring the sale of ice-cream is inaugurated, and, then, as a rule, we are all eager to eat large quantities of this dainty. It is now the vogue to add to the ice-cream either carbonated water or to have a liberal amount of fruits or fruit syrups added to it. Taken occasionally, such a dish undoubtedly is but little harmful, but if, as is so frequently the case, either ice-cream or ice-cream sodas or sundaes are eaten or drunk to excess, we find a toxic condition of the bowel to follow, and finally a general toxemia, due to absorption from that organ.

In many parts of the country, especially those where a high degree of humidity accompanies the summer heat, insolation is not uncommon. In many cases this condition follows that of autotoxemia, due largely to the causes outlined above. We rarely see a case of heat-prostration occurring in those who are careful regarding their diet and who see to it that their bowels are kept clear and clean at all times of the year.

Young children, especially those who are nursing and depending largely upon cow's milk or one of the manufactured foods, are very prone to bowel and stomach troubles during the summer months. Cholera infantum is common at such times, its etiologic factors being improper feeding combined either with extreme heat or a high degree of humidity.

The Value of Preventive Measures

Among the specific conditions, or diseases, we find that malaria prevails to a very considerable extent in the newer portions of the country or in those portions adjacent to marshes or undrained spots where the mosquito breeds. Typhoid fever likewise prevails in those portions where the water supply becomes infested with the specific organism, due to faulty hygiene. In the southern countries we find more or less prevalent diseases peculiar to such localities, including typhus, yellow-fever, cholera, dysentery, and other gastrointestinal maladies, their frequency being governed by the local sanitary conditions.

In all of the pathologic conditions peculiar to the heated term we find that preventive measures, if properly carried out, overcome a tendency to their occurrence. If possible, prior to the arrival of the hot months, the practician should encourage his patrons to clear out their bowels, and keep them clean at all times during the heated term. He should offer counsel as to diet and recommend conservatism at all times. He should advise that at the least sign of any irritation of the gastrointestinal tract his patron should come to him for consultation and treatment.

Personal hygiene undoubtedly is of greater importance during the summer

months than at any other time of the year. At this time the skin is very active, as a rule, and after the least exertion is covered with excretory material which should be removed at frequent intervals, that it may not undergo decomposition, thereby favoring an irritation of the cuticle and the possible interference with the functions of that organ.

The First Point of Therapeutic Attack

When we find instances of gastrointestinal disturbances during the summer months, our first effort should be to clear the stomach and bowels of their contents, thoroughly and completely. In order to accomplish this, it is probable that calomel and podophyllin, followed by a laxative saline, are our best agents. I prefer administering calomel in 1-6 grain doses, every half hour until a total of 2 grains has been taken. To every other dose of the calomel, I add 1-6 grain of podophyllin. Following the last dose of the cholagog, at an interval of from two to four hours, an effervescent laxative saline, preferably one carrying 60 percent of purified magnesium sulphate, is administered, at half-hourly intervals, in teaspoonful doses until such time as the discharges from the bowels are absolutely free from all solid material. If the flow of bile is deficient and the liver inactive, I find that the addition of 1-8 grain of bilein to each dose of calomel overcomes this deficiency and stimulates the action of the bowels.

Following the clearing out of the bowels, they should be kept clean by the use of the sulphocarbolates to effect or until such time as the feces are of normal consistency and odorless. If there is an apathetic condition of the bowel, juglandin, in dosage of from 1-2 to 1 grain three times a day, acts to stimulate the bowel function.

Look Out for the Eliminants

If such cases as a general toxemia are encountered, in addition to the local intestinal conditions, the eliminating functions should all be stimulated. That the liver may be stimulated to increased action, the administration of emetin and colchicine, either or both, is indicated. Xanthoxylin favors elimination by the kidneys, and in that manner removes many of the toxic substances.

If there is an excess of acidity, as shown by the condition of the urine, the alkaline treatment is indicated, and here we find the sodium and xanthoxylin compound of avail. The bowels should be kept relaxed at all times, during the course of treatment, by laxative morning doses of the effervescent saline.

Insolation is, as a rule, treated symptomatically. If there is a pronounced congestion of the internal tissues, we find glonoin, which dilates the peripheral vessels, one of our best primary remedies. In order that the excess of blood may be held to the surface,the subsequent use of atropine is indicated. If there is a high degree of fever, aconitine and veratrine are indicated, to be employed to effect. In hyperpyrexia, cold applications or cold baths are to be employed in connection with the internal antipyretics. In all cases the bowels should have attention, being cleared out and kept clean.

The Folly of Opiates

In the past, under the older systems of treatment, the mortality in cholera infantum has been appalling. Opiates were employed, and thereby, instead of ridding the stomach and bowels of the irritative substances, they were locked up therein, to become too active again with the subsequent loss of opiate effect.

Under the newer plan of treatment, elimination is favored. Initially the bowels are cleared out with calomel, followed either by a saline laxative or castor oil. If the temperature is high, cool enemas are given, the water being from 5 to 10 degrees below the normal body-heat. If there is pronounced diarrhea, zinc sulphocarbolate should be pushed to effect, otherwise the combined sulphocarbolates, to effect. Copper arsenate is of great value, both as an astringent and intestinal antiseptic in such cases. It may be combined with hydrastin and strychnine. If the condition of the skin is cold and clammy with pallor of the patient, and there are symptoms of

internal congestion of a considerable degree, atropine should be administered until such time as there is redness of the skin. Aconitine is undoubtedly the best remedy we have to control fever in this condition. For the pain, Waugh's anodyne for infants or the calmative suggested by Candler are effective.

No food should be given until the pronounced symptoms have disappeared, but the patient may have boiled water, either with or without the addition of barley, with the doses of the sulphocarbolates, this tending to keep the gastrointestinal tract bathed with an antiseptic fluid at all times. The idea is to keep the bowels functionating properly and clean at the same time, in this way keeping them rid of substances of an irritative character.

Subsequent to the attack, proper feeding should be inaugurated and the patient should be placed upon tonic treatment. The proper hygienic measures should be taught the mother or other person in charge of the infant.

Summer-Time Biliousness

"Biliousness", as it is called, is frequently encountered during the summer months, this being due either to overeating or to faulty personal hygiene. The remarks applied to autotoxemia apply to this condition, as it is, in the majority of instances, nothing more nor less than a toxic condition due to absorption from the bowels.

Clear out the bowels with calomel, podophyllin and leptandrin, 1-6 grain each every half hour for from four to nine doses, on retiring, and follow, in the morning, upon arising, with saline laxative to effect or until the bowels are completely emptied of solids. Strychnine arsenate and quassin are indicated for their stimulating effect. Colchicine, 1-134 grain before meals, and chionanthin, from 1-2 to 1 grain, after meals, favor elimination.

The stimulants of the bowel action, as bryonin, juglandin, euonymin, iridin, chelidonin, frequently are indicated. Xanthoxylin, to favor elimination by the kidneys. Arbutin, as a diuretic, is of avail in these cases, in that it favors the elimination of waste. Bilein, either alone or in combination with calomel and podophyllin, is indicated wherever we find a deficiency of bile in the bowel discharges.

The diet should have attention in all cases, while during treatment the patient would better be starved for the time being. The subsequent treatment consists in keeping the bowels and other excretory organs functionating properly at all times. Constipation should be corrected in every case and such correction maintained.

What Remedies Have You Found Most Reliable and Useful?

By JOHN M. SHALLER, M. D., Denver, Colorado

WHAT single remedy have you found to be the most reliable and useful and upon which you can generally depend and feel confident that it will produce the results you desire?

It is just such confidence in medicine that stands for success in the treatment of disease.

The Absurdity of the Drugless Systems of Cure

Nature, mind, suggestion, faith-cures, drugless treatment, and all such have not lowered the death-rate. Any improvement in this direction has come from medical men, chiefly from the various methods of prevention and improved methods of cure. The "drugless" people, by their carelessness and ignorance, encourage the spread of disease. This is true especially of that deluded class which denies the existence of diphtheria, scarlet-fever, and all other contagious disorders.

When one denies the evidences of his senses, he is justly adjudged insane. If one's mind does not analyze, modify and

properly adjust the evidence brought to it by the senses, that mind is not sound.

When medicines are given, and certain improvements follow, and when such results can be generally re-produced, there must necessarily be some good in them. This is evidence conveyed by the senses.

To deny the existence of disease and to deny that medicines are palliative and curative is certainly a wonderfully strange, incongruous state of affairs. Such claim may either be a fraudulent one or based upon delusion, depending entirely upon the charitable manner or otherwise of looking at it. Because those who deny the existence of disease have for their life-work the ability to cure disease—C. O. D.; in fact, the entire foundation of their cult rests upon that. Take the curing of disease out of that particular church creed, and there is nothing left. One of their established tenets is to follow in the footsteps of The Christ. But, pray, were His methods C. O. D.? Yet, many who deny the power of medicines to cure make a living by prescribing and administering medicines!

Fortunately the class of physicians who affect the belief that medicines are not curative is comparatively small. Because one great professor has said that medicines are not curative, thousands of others repeat this oracle, especially when they fail to effect palliation or cure.

Medicines are both palliative and curative. They are as much so as surgical operations, more so than the numberless faith-cures and new cults of healing that are daily springing up.

No matter to what class you belong, you will become sick, and you will die, and sickness will occur at all ages and from all causes. No class of people on earth are exempt from sickness more than other classes, unless they have learned to live hygienically. This cannot be brought about by any methods of cure after sickness has been acquired, nor by denying the existence of disease, but by recognizing the cause and preventing and destroying that cause.

What evidence have we that medicines are both palliative and curative? Every day's experience demonstrates it, and tomorrow's work will confirm it.

If each physician will studiously ask himself the question, What remedies have I found to be reliable? he will soon settle the matter in his own mind. If he will publish his experience, he will convince *some* of the skeptical. But only some of them.

In an active, general practice there is one remedy that stands out very prominently as being the most important and most frequently used by the writer. It would be extremely interesting and highly instructive if every physician would write about the one remedy which gives him the greatest satisfaction and upon which he can usually depend and reasonably to expect uniform results from it.

My Best Stand-By Is Aconitine—What Is Yours?

Particularly among children, no one remedy has proved to be so uniformly useful as Abbott's or amorphous aconitine when treating acute diseases accompanied by fever. Because these diseases are very common, the need of a reliable febrifuge is easily understood.

No doubt each physician prescribes some one favorite febrifuge which he generally uses in treating acute inflammatory conditions. With this he makes various combinations to suit the symptoms as they arise.

The writer's chief reason for preferring aconitine is that it rapidly, effectually and safely reduces fever, no matter what the cause (except from sepsis). Then, if given early in acute, active inflammations, such as pneumonia, bronchitis, and pharyngitis, both in children and adults, these diseases are frequently checked or aborted. The remedy is pleasant to take, especially for children, and the dose is easily regulated.

The advantage to the physician, outside of rapidly reducing fever, is that he can conveniently carry aconitine granules with him and administer the first dose of the remedy himself. This produces a strong psychologic effect and inspires confidence.

Aconitine granules should always be in the pocket-case of the physician, because of their convenience and usefulness. As familiar as doctors are with aconite, they

are not always so well informed about its active principle, aconitine.

In acute lobar pneumonia, if prescribed soon after the initial chill or convulsion, or before solidification begins, the probabilities are that congestion will not proceed to the exudative stage. The temperature can be diminished, if necessary, and excessive fever may be reduced even if solidification is present. It frequently happens that normal temperature is reached within twenty-four hours, if treatment is begun early. This is not the experience of this writer alone, but of many thousands of progressive physicians. At the same time that fever is diminished, the pulse is reduced in rapidity without losing in strength. The secretions of the skin and kidneys increase and the mucous membrane of the mouth in particular becomes moist; in fact, when the tongue is dry, its mucous membrane becomes moist as one of the first effects of the action of this remedy.

In pharyngitis, laryngitis and in bronchitis, aconitine acts quickly in reducing inflammation both in adults and children. Because it accomplishes this and can generally be relied upon to do it uniformly and without deleterious results, is the chief reason for its recommendation.

Aconitine, if Cautiously Administered, Is Harmless

Like all other medicines that are potent for good, if not properly understood or if indiscriminately prescribed, aconitine may become harmful. In prescribing opiates, certain exact rules must be strictly followed if beneficial results are to be obtained. With aconitine, similar precautions obviously are necessary.

In prescribing this remedy for adults, the following rule has stood the test of many years:

The Aconitine Rule

One granule, containing 1-134 grain of Abbott's or amorphous aconitine is the (average) minimum adult dose. When active fever is present, as in acute inflammatory diseases (except sepsis), one granule dissolved in water is administered every half hour or every hour. If the temperature is 104° F. or higher, the pulse full, the face flushed, the skin hot and dry, one granule may be given every fifteen minutes for one or two hours. Two granules have frequently been given in very active fevers, in robust patients. When the temperature begins to decline (as shown by the thermometer) and when the pulse-rate is lowered, or when the patient's general condition improves, the dose is then given every hour and is so continued until the temperature is below 100° F. After this the medicine is given every two hours.

Aconitine Will Abort Fevers

The object in giving aconitine so frequently is to obtain physiologic results as soon as possible, in order to abort the inflammation and to check the disease. This can be done, of course, only in the early period of the attack, before the disease is established. The duration of the congestive stage varies. It is during this time, however, when premonitory symptoms are more or less characteristic of impending inflammation that aconitine should be used with the idea of aborting disease.

Every congestion does not result in inflammation. A great many more would not if physicians generally made deliberate efforts to check a condition which from its very nature is transitional. This fact alone makes it amenable to change or interference by active medication. Even established inflammation is subject to change through the application of various remedies. Why, then, should congestion not be? If every active congestion could be recognized during its first hours of existence, and vigorously treated, with the idea of checking it, such diseases as pneumonia would not be so prevalent.

The public should be taught to recognize early the premonitory symptoms of inflammatory and zymotic diseases, and people should also learn to send for a physician at once, in order to enable him to begin treatment during the formative period, a time when a disease-process can be more easily changed than at any other.

Vasomotor disturbances prevail during the congestive period. Full doses of aconitine at long intervals of time paralyze the

vasodilators, which increases local congestion. Small physiologic doses frequently repeated, however, stimulate and restore the unbalanced circulation to the normal, and this without detrimentally reducing the strength of the heart.

In disease, symptoms are perhaps always accompanied by vasomotor disturbances. There is either diminished or increased blood supply.

Vasomotor Disturbances Must Be Equalized

Even if this vasomotor disturbance is an effect and not a cause, it is well known that if it can be restored to the normal, the disease may be cured. In acute congestion, in colic, angina pectoris or in asthma, remedies which flush the skin with blood produce relief.

Without vasomotor disturbances there would be few symptoms. These disturbances are very common in all febrile diseases. They interfere with the secretions and are also present in motor and sensory abnormalities. Our success in the treatment of diseases depends greatly upon our ability to inhibit or stimulate chiefly vasomotor nerve action.

The action of aconitine, like that of many other remedies, is chiefly through the vasomotor nerves. Disease disturbs this normal action. Our remedies are for the purpose of restoring abnormal nerve action to the normal.

It has long been known that socalled "colds," which are really congestions or inflammations of some kind, can be checked by hot baths, profuse sweating or forced diarrhea. This means diverting the blood from the congested area and preventing its further accumulation there. If this cannot be done, then disease follows. Aconitine acts in a similar way by flushing the capillaries of the skin, through action upon the vasomotor centers, and by indirectly reestablishing the secretions. All this is accomplished better by giving small doses frequently repeated until some beneficial change is manifest, rather than by giving larger doses at longer intervals of time because, as has been mentioned, large doses inhibit. Results are obtained more quickly and more pleasantly by small doses.

Physicians who have lost faith in medicines, or who think they have, or those who never believed in their therapeutic value, will quickly change their opinions if they become accustomed to the use of aconitine in the beginning of acute febrile movements.

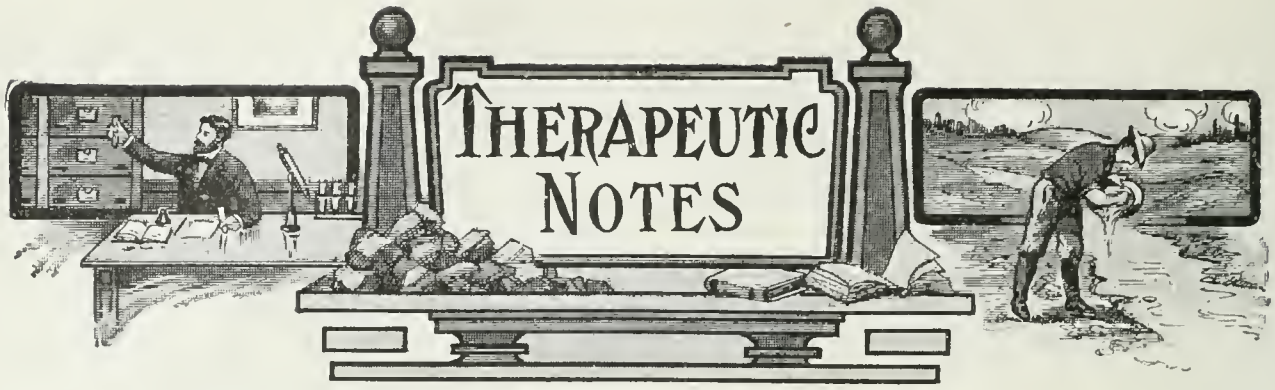
Acute Inflammatory Conditions of Childhood Best Field for Aconitine

It is to the treatment of acute inflammations of childhood, however, that this remedy is best adapted. Children furnish a very large part of the patients for the general practitioner. Many children die who should be saved, and would be, if parents sought proper medical help earlier. *Non*-medical treatment of diphtheria, meningitis, and pneumonia is not only an *improper help, but is criminal.*

It is also probably true that if more persistent efforts were made to abort acute congestions, many severe cases of pneumonia and of bronchitis would be prevented.

Small doses of aconitine frequently repeated will accomplish this result. The dose is simple, accurate, and easily managed. For each year of the patient's age one granule of Abbott's or amorphous aconitine (not the crystallized), gr. 1-134, is dissolved in twenty-four teaspoonfuls of water, together with one additional granule. For instance, for a 5-year-old child, six granules. For a 2-year-old child, three granules. Under one year, however, one granule in twenty-four teaspoonfuls of water is an efficient and safe dose, even for an infant under one month. It need not here be given so frequently as every fifteen minutes, unless the temperature is over 105 degrees and convulsions seem probable, as indicated by muscular twitching.

Such useful means as frequent cold sponge-baths, giving plenty of cold water to drink, keeping the patient lightly clad, the room well ventilated, the bowels free from constipation, and the selection of a proper fluid diet, or better still, no food at all for two or three days, are all extremely important additions to be personally looked after.



DIARRHEAL TROUBLES

Don't forget that these are the months for the intestinal antiseptics. The fundamental factors in the treatment of all diarrheal troubles are just these:

First, see that the alimentary canal is thoroughly cleaned out and kept free from irritating waste.

Second, feed your patients in such a way as not to add to that irritating waste.

Third, use intestinal antiseptics to keep the canal sweet and clean.

If you do these things, you will not need to stifle the pain and check the discharge by the use of opiates—a dangerous practice, especially when treating children. "Clean out, clean up, and keep clean." And don't forget the sulphocarbolates.

A NEW DIGITALIS GLUCOSIDE

Kraft reports (*Schweiz. Woch. f. Chem. u. Pharm.*, 1911, 49) some of the recent work on the active principles of digitalis. He has been especially reinvestigating the water-soluble substances of the "digitalein" group. The glucoside described under this name, it seems, has not been very definitely described heretofore, and the literature regarding it is scanty. The author has isolated a definite crystalline glucoside which bears the name "gitalin." When secured in a purified form, this is an amorphous white powder, permanent in the air, melting at 150° to 155° C., soluble in 600 parts of cold water. If this glucoside is dissolved at ordinary temperature in a very little alcohol, and the solution is mixed with half its volume of water, the mixture results in a crystalline mass, in a few minutes, this being due to the less soluble gitalin hydrate. This interesting product, so far as we can learn, has not yet been placed upon the market.

SOME OFFICIAL TINCTURES

In the proceedings of The Massachusetts State Pharmaceutical Association for 1910, we read that Mr. J. W. Pollard obtained 40 samples of 4 different official tinctures from retail stores in Boston, and tested them at The Massachusetts College of Pharmacy for the percentage of extracted matter and the percentage of alcohol. This was done with a view to ascertaining how uniform such tinctures are when dispensed by druggists. The samples tested were those of belladonna, hyoscyamus, digitalis, and gentian compound.

Of the tinctures of belladonna, the lowest in extractive matter was one containing 1.05 percent, the highest one contained 3.76 percent, the average being 2.40 percent.

Of the tinctures of hyoscyamus, the lowest contained 1.04 percent, the highest, 4.27 percent, and the average was 3.26 percent.

Of the digitalis, the lowest in extractive matter contained 1.08 percent, the highest 3.45 percent; the average being 2.32 percent.

The lowest sample of tincture of gentian compound contained 1.08 percent, the highest 5.01 percent; an average of 3.09 percent of extractive matter.

Thus it will be seen that, if the amount of extractive matter can be assumed as the measure of strength, there is a variation of nearly 500 percent. Of course, the quantity of extractive does not determine the potency, but the variation shown is

significant, to say the least. There was also a decided variability of the percentage of alcohol present in the different samples of tinctures.

THYROID EXTRACT IN RHEUMATIC AFFECTIONS OF JOINTS

Horace Wilson (*Brit. Med. Jour.*, 1910, p. 1769) employed thyroid extract in two patients with rheumatic joints. One was a man of 54, severely hindered in the use of all his limbs, who had received no benefit from treatment and had become emaciated. The second patient was an older man whose disease was localized in the metacarpophalangeal joints. In the former the thyroid gland could not be felt, in the latter, slightly. The curative result was excellent in both cases.

The author believes that cases of "chronic villous arthritis" in which the process is limited to the capsules, cartilage and bone not being changed, will derive benefit from the treatment. Such affections have, in his opinion, their causative factor in disturbances of metabolism which he places in a parallel with myxodema. However that may be, the report is certainly favorable and encouraging. This mode of treatment is not new and it should be tested further.

VARIATIONS OF PLANT PRINCIPLES

According to Burman, quoted by *The Pharmaceutical Journal* (from *Schweiz. Woch. f. Chem.*), the inclement weather of the last two summers has diminished the amount of active principles contained in certain medicinal plants. This is due to the low temperatures and lessened amount of sunshine; rain, as such, does not appear to have any notable effect, since the amount of moisture found in plants is said to be the same in wet and dry years. The following figures show the percentage yield of active principle for the years 1907 to 1910 inclusive: Aconite: aconitine, 0.104, 0.100, 0.042, 0.054. Belladonna: atropine, 0.094, 0.082, 0.045, 0.046. Colchicum seeds: colchicine, 0.194, 0.160, 0.144, 0.148. Digitalis grandiflora: digitoxin, 0.138, 0.120, 0.067, 0.069. Digitalis purpurea: digitoxin, 0.078, 0.063, 0.033, 0.037. Ergot: cornutine, 0.30, 0.26, 0.25, 0.22. It will be noted that in some instances the amount of active principle present in the last two years has been practically half that of two former years.

Again is our contention as to the variability of the vegetable drugs, and their galenic preparations, verified.

PANCREATIC INSUFFIENCY

Loeper and Esmonet (*Gaz. des Hop.*, Nov. 3, 1910, p. 1700) have obtained good results in experimental tuberculosis from energetic treatment with pancreatin. They suggest that there occurs a threefold effect, namely, digestive, general and antibacterial, and that this may prove of value clinically.

QUININE HYDROBROMIDE IN EXOPHTHALMIC GOITER

In the treatment of exophthalmic goiter, Drs. Jackson and Eastman, as quoted in *The Prescriber* (Dec., 1910, page 215), have obtained the best results from neutral quinine hydrobromide. It is important that a strictly neutral salt be used, as the acid salt does not give as good results. It is given in capsules containing 5 grains each, and to the limit of tolerance, which is rarely more than three or four capsules a day. Toxic saturation is shown by the appearance of tinnitus, and the medicine should be temporarily stopped when this appears. The administration must be continued for months or even for years.

Very frequently, we are told, the patients notice, after a week or two of the treatment, a diminution of the palpitation, the sweating, the tremor, and other nervous symptoms, and in many instances the thyroid gland diminishes in size. The exophthalmos seems to be the last of the signs to disappear, and this may not be until the expiration of two or three years. When the latter occurs, the dose of the drug should be cut down to as little even as two or three capsules a week, the patient being cautioned, however, to resume immediately the former dose at the first

appearance of any of the old symptoms. The authors, whose paper appears in *The Boston Medical and Surgical Journal*, are not certain how the quinine acts, although it seems most probable that it influences the sympathetic nervous system.

FOURTH-OF-JULY WOUNDS

Do not forget that more tetanus occurs during the two or three weeks following the Fourth of July celebration than throughout almost all the rest of the year. Remember that the tetanus bacillus is anaerobic, i. e., it develops in the absence of air—oxygen.

The physician should see to it that all wounds caused by blank cartridges, gun shots, and so on, are opened freely, so that they are exposed to access of the air throughout. Under no circumstance apply an impervious dressing, but instead open widely and cover the wound with several layers of loose gauze. If the wound is one which cannot readily be opened up throughout its course, it is the part of wisdom to make a prophylactic injection of tetanus antitoxin. This procedure will save many lives.

THE ACTION OF SOME DIURETICS

Erich Meyer reports, in *Therapeutische Monatshefte* (*Medical Review of Reviews*, April, 1911), a case of mitral insufficiency and obstruction in a young man in whom there was marked congestion and edema. These symptoms were materially improved by rest in bed and digitalis. The blood pressure was always increased during the attacks, and was decreased by treatment.

Under the influence of treatment, there was increased urinary secretion, not only in quantity but in concentration, the salt-content remaining relatively the same. In this case, the patient eliminated about 20 Grams of salt at the height of the digitalis action. Hence digitalis improved the circulation in the kidneys and thus enabled them to secrete a urine richer in salt. It may be assumed that under the influence of theophyllin the circulation of the kidney is improved and thus the epithelia are rendered more efficient and excrete more salt.

TYPHOID VACCINATION

The Academy of Medicine at Paris has had a report from a committee appointed to study Vincent's typhoid vaccination. The result of a year's trial has been favorable in the army tests. Vaccinated subjects proved only half as liable to typhoid fever, and the mortality of those attacked was much lower than among the unvaccinated. The operation proved innocuous, but the immunity was not as enduring as was hoped. One curious fact developed was that for some time after the vaccination the liability to typhoid fever was greater than in the controls. Vaccination during an epidemic should be avoided.

Delorme asserted that the operation was followed by more pronounced reaction than the report claimed, such as diffuse erythema, hard erysipelatous edema, sharp pain, fever up to 104° F., vomiting, tachycardia, and syncope. There are many contraindications, such as tuberculosis, debility, and convalescence.

Netter said that of 70,000 soldiers 35,000 were vaccinated in 1908. Of those vaccinated, 158 contracted typhoid fever and 17 died. Of the unvaccinated, 481 were seized with typhoid fever, with 100 deaths. Landouzy quoted Russell's American statistics, showing typhoid fever to be fifteen times less in those vaccinated.

DANGERS OF SANTONIN

A. Mayor, in *Semaine Médicale*, according to *Monthly Cyclopedia* (April, 1911), comments upon cases recently reported by Baxter and by Freyer, illustrating possible untoward results from the use of santonin and male fern. He points out that the accidents observed in their cases were due simply to improper methods of administering the drugs. Baxter had given santonin in solution in castor oil, the patient subsequently becoming blind, while Freyer had administered a dose of castor oil before giving the vermifuge. Oily substances bring these drugs into solution,

and, therefore, favor their absorption into the general system. Santonin is not absorbed when administered in powder form and hence exerts no toxic effects, though acting on the parasites.

We have repeatedly published similar accounts, and it may be well again to call attention to the possibility of harm from santonin in oily solutions.

TREATMENT OF THE DROWNED

This being the season when "fools rock the boat," it is an excellent plan for physicians to be prepared to treat the apparently drowned. Excellent instructions on this subject are contained in a Bulletin issued by The Michigan State Board of Health. This pamphlet also gives instructions in the management of persons who are suffocated or electrically shocked. Copies of this Bulletin can no doubt be obtained on request.

THE UTILIZATION OF FATS AND OILS ADMINISTERED SUBCUTANEOUSLY

Dr. Lloyd H. Mills reports, in the May number of *The Archives of Internal Medicine*, a series of very interesting and instructive experiments undertaken for the purpose of determining the fate of fats and oils introduced into the mammalian organism by the subcutaneous route.

From comparative examination of the iodine indices of the ether extracts of visceral and adipose tissue, Mills found that it seems likely that the actively functioning viscera utilize oil and fat, absorbed after subcutaneous injection, for the direct performance of their functions, and that the storage of the foreign fat given in excess of the nutritive requirements takes place principally in the subcutaneous tissue, liver, and lungs, and to a small extent in the kidneys and spleen, while the pancreas and stomach and intestines are practically uninfluenced.

This demonstration that, after injection under suitable conditions, oils can be absorbed to an amount sufficient to cover so large a proportion of the calorific requirement suggests the application of such injections to the treatment of wasting diseases, to the cachectic conditions associated with imperfect metabolic processes, and especially to tuberculosis, in which the intolerance of fats is almost symptomatic.

Dr. H. Lyon Smith, in *The Lancet* for November 5, 1910, says that he has found a combination of 1-8 grain of morphine hydrochloride and 10 grains of acid hydrochloride of quinine more efficacious in practice than either alkaloid used alone.

ARTIFICIAL ILLUMINATION

In an excellent little booklet issued by The American Association for the Conservation of Vision, an effort is made to disabuse people of the idea that this or that form of light is "hard" on the eyes. It is the way in which the light is used, not the source of it, which makes it good or bad. Bare gas-flame or electric lights should never be tolerated in any case. It is the dazzling effect on the visual organs of the uncovered light which makes it harmful.

Many people still use oil lamps, thinking that this light is easier on the eyes than others. It is easy because such lamps are always placed on tables and usually covered with shades, which completely hide the flame, also, of course, because their light is much less bright than the electric light. If an electric lamp or gas light is used in the same way, properly shaded, so that the light is well diffused, the illumination produced is not only just as easy on the eyes, but cannot be distinguished from that of the oil lamp. Exactly the same conditions apply to gas. The flame burner should be entirely discarded except in a few places where a light is only seldom required, since it flickers and blows and gives a wavering illumination.

When the modern mantle-burner is used, the quality of the light cannot be distinguished from the best electric light or that of the oil lamp. Whatever the form of light, a globe or shade should be used that entirely hides the luminous surface, those with light-yellow or green tint being the best. Blue gives a cold, ineffective illumination, while red is irritating to the nerves.

Nervous Dyspepsia

NERVOUS dyspepsia is frequently compatible, especially in neurasthenics, with a certain degree of good appetite, and yet at the same time the patient may experience the hyperesthetic symptoms from the solar plexus, such as digestive uneasiness, twinges, nausea, postprandial heaviness and flatulence, etc. Palpation of the epigastrium or even the simple pressure of the garments, as, e. g., the whalebones in a woman's corset, produces disagreeable sensations. A sense of fatigue and muscular inability, mental depression, an irritable state of somnolence are coupled with cephalic congestion and distressing palpitations after meals. These are some of the endowments of the nervous dyspeptic. He suffers at times from tachycardia with arrhythmia and an unstable circulation, he has spells of heat in the face and of cold feet and hands at the same time, or he may feel a tendency to fainting such as we observe in myocardites. Herz of Vienna insists on the frequency of spasmodic sighing, a sort of contraction of the diaphragm, a peculiar asthmatic dyspnea also, and dry cough coupled with an anxious sensation of thoracic constriction at the least emotion. These are the accompaniments of nervous dyspepsia. Let us say here at once that in these cases the granules of codeine or of heroin given dosimetrically, those of caffeine and of sparteine given before meals, keep off these reflex attacks, which are, perhaps pompously, described as functional cardiopathies."

The emotions of which we spoke act vividly the same as the least overexertion or the least failure of diet: they stir up and exaggerate painful symptoms so much so that the patient loses after a while all force and courage, becomes unfit for work, restless, hypochondriac, emaciated, despairing, especially if the patient has insomnia, which is not rare in these cases. Some granules of monobromated camphor given in a little chloroform water overcome these evils ordinarily, and the insomnia, too, if the bowels are promptly emptied by an enema, for nothing is so inimical to a restorer of sleep as a visceral fulness at night.

The psychic character of the nervous dyspeptic becomes frequently distorted so as to make one doubt his mental sanity. This is because the excited great sympathetic produces various phobias, genital excitement, moral depressions coupled with ideas of impending death and other signs of insanity, special hereditary complications after some weeks of nightmares, hallucinations, insomnia not easily alleviated, which brings in its train a failure of will, judgment, attention, and memory.

Hydro- and electrotherapy judiciously applied now become valuable and often even indispensable to remedy the nervous derangements. These physical remedial agents equilibrate at the same time the gastric work, which Corvisart regards as an intuitional work, or, as Pawlow does, even as intellectual work; for the gastric glands and the smooth muscular fibers, regarded from the viewpoint of quantity and quality of the secreted juice and peristaltic function, enable the organism to go on and to provide for its nutrition. It is evident that a diet well appointed stands

first at all times as an important therapy. The fatigued stomach must first of all be put in relative rest. Every dyspepsia is, as Hayem says, if not an unsuspected gastritis, then at least a prolog and antechamber of said gastritis as a latent power.

Clinically, I must yet insist a little on the sensorial reflexes of nervous dyspepsia. The patients complain of ringing in the ears, of abnormal noises in the head comparable to jets of steam or the chirping of the grasshopper, coincident at times with some weakness of hearing. All these symptoms are evidently reflexes, since they become weaker and disappear ordinarily under the mere treatment of the culpable stomach. The distance-sight is what suffers most in these cases of bad digestion. The patients complain of *muscæ volitantes*, of fog and mist before their eyes, etc., while no lesion can be detected ophthalmoscopically. Ocular migraine, with its pains, its luminous streaks and sparks and black spots, troubles of accommodation, suborbital and palpebral neuralgia, spells of lachrymation, and conjunctivitis, all these also are troubles of the sympathetic, engendered by digestive toxins. These are currently observed in the intellectual night-workers at artificial light.

This the physician has to stop first of all and must advise morning work instead. Then seidlitz enemas, strychnine granules, and Scotch douches (alternate hot and cold) frequently prevent the return of similar attacks. Against and during an attack itself, a dose of kènarol [a mixture of a decigram each of acetanidosalol, dimethylamidoanalgesin, and analgesin salicylate] in half a tumbler of water is of no value. It should be given in two-teaspoonful doses at the outset of the attack, then in one-teaspoonful doses two hours after, if the attack has not ceased. At the same time the patient with migraine should take a little menthol powder and make periorbital friction, with camphorated alcohol or tincture of jaborandi. In cases of asthenopia, Robin recommends the wearing of prismatic glasses with the thick edge downward. Whenever possible, intellectual work should be displaced by physical. A cure of the troubles will not be rapid nor complete, especially in the young of either sex when they are the victims of school-examination anxieties.

When nervous dyspepsia threatens to perpetuate itself, it brings in its train the loss of tonicity of the gastric muscular fibers, with its consequent functional trouble, which was classified during the last quarter century under the clinical syndrome of dilatation. It is almost proven at the present that in most cases of gastrectasis it is nothing else than myasthenia, and dilatation is no longer considered as a morbid entity, even if the stomach empties itself badly and is enlarged in its dimension, undulates and splashes when fasting or some hours after eating. Motor insufficiency is enough to produce an overdistention of the stomach and to interfere seriously with the process of nutrition. This does not prevent, however, the nervous or even the moral factors, as, e. g., the depressive effects, mainly, from producing a subtonicity, especially if these factors act during a meal. The gastrosoph Brillat-Savarin said something like this: "A happy digestion depends at times less upon the talent of a Vatel [a noted teacher of the 17th century, in the house of the great Condé] than upon a good laugh at an Amphitryon [a comedy by Molière].

When there is nothing more than tympanites, with or without eructations but void of all painful paroxysms, it is enough to give a small teaspoonful of absorbing powder [a mixture of chalk, magnesium tribasic phosphate, bismuth benzoate, manganese dioxide, etc.] two or three hours after meals. Immediately before meals, two granules of strychnine and three of quassin. Every second morning a hot enema of chamomile infusion in addition to seidlitz Charles Chanteaud. If, in addition to this treatment, it is possible to give a hot sulphurous douche on the spine and an abdominal faradization, then one may well be sure to triumph over the gastric atony. When there are painful spells of distention, it is best to give, every fifteen minutes, one granule each of picrotoxin, veratrine, and cannabin, a combination which has the advantage of calming the pain without increasing the gastric atony, as

do the classic drops of morphine and cocaine. Dover's powder, thanks to the ipecac it contains, may also meet the requirements of an irritable gastric myasthenia.

When there is no fear of any pain, we may stimulate the hyposthenic digestion with a hot infusion of angelica root, given after each meal, with the addition of some stenol [a compound of caffeine and theobromine]. This will clear up the most troublesome phosphatic urine. To quiet the sensitiveness and contraction either of the cardia or pylorus, in case of dysphagia, we may prescribe 100 Grams of warm olive oil (3 ounces, about) flavored with anise oil, to be taken three-fourths of an hour before every meal. This I think superior to any stupefying remedy.—Dr. E. Monin, in *La Dosimetrie*, March, 1911, p. 39.

(*To be Continued*)

AGAINST PNEUMONIA IN OLD AGE

Oppenheim and Cropin (*Tribune Méd.*, 1910, p. 646) used oil of camphor, 20 percent, subcutaneously, in senile pneumonia, in large doses. They gave twice daily 5 Cc. (80 minims) injected under the skin of the abdomen. Unpleasant side-effects were not observed, in spite of the large doses. The breath had a decided odor of camphor. Sixteen persons were treated in this way, seven of whom succumbed to the disease. With one exception, a woman 76 years old, the ages of all the rest were above seventy.—*Wiener Medizin. Wochenschrift.*

COLCHICINE

A curious instance comes to us from Paris, of the slowness with which medical thought adapts itself to new ideas.

Robin, discussing the treatment of gout, expressed a preference for a French preparation made from the flowers of colchicum. His reason was that the quantity of colchicine contained in the seed varied from year to year. This was not the case with the flowers, and a tincture made from them had the advantage of constant composition and stability.

Strangely enough, it did not seem to occur to the great man that the easiest way of getting rid of this difficulty was to use the active principle itself, colchicine. This is the more remarkable, since in the same lecture he spoke favorably of the use of this principle. It is hard for men, when they have passed a certain age, to form new habits or get out of the ruts they have worn for themselves.

NITRITE POISONING CAUSED BY BISMUTH SUBNITRATE

A study was made recently of bismuth poisoning occasioned by bismuth subnitrate. The reduction of the nitrate to the nitrite is due to the agency of certain reducing bacteria, and that process takes place in the lower portion of the intestine. In certain postmortem examinations it was noticed with surprise that all the bismuth taken had passed the small intestine and accumulated in the colon.

The toxic symptoms occur after a latent period of some hours and then reach their acme in a short time in the shape of vomiting, great debility, diarrhea, cyanosis, methemaglobin in the blood, and these followed either by death or by complete recovery in a relatively short time. These experiences make it imperative to use in x-ray practice some bismuth combination which is slightly soluble and lacks the nitrate components.—*Berlin Klin. Wochenschr.*, in *Pharm. Centralh.*, 1910, p. 1070.

OBSTRUCTED DELIVERY

Dr. Prüsmann, in the *Münchener Medizinische Wochenschrift* (1910, p. 41), reports the case of a woman who, instead of a vagina, has only a narrow passage of the dimensions of a male urinary catheter, 7 1-2 inches in length, this canal opening on the left side. In place of the vulva there is a large cicatrix which extends up to the symphysis pubis. An excretory urethral duct is not to be seen anywhere. The urethra appears to open somewhere into the narrow canal above the cicatrix. The patient is 28 years old. She says that when she was six years old she was run over by a freight wagon and that one of its

wheels passed exactly between her thighs. She was sick in bed with fever for three months. There was no impediment to walking when she recovered. The urine and the menstrual discharge issued from the narrow opening mentioned. After five years of a sterile marriage she became pregnant, to her own and her husband's great astonishment, for regular coitus could, of course, never have taken place.

In view of the anatomical situation, it is evident that the spermatozoa must have passed the 7 1-2 inches long canal to the portio vaginalis uteri by their own power of motion. It is true that pregnancy is known to have taken place in case of an unperforated hymen, yet it can be assumed that in such cases the sperm was thrown mechanically into the upper part of the vagina.

Prüsmann followed the operation advised by Latzko. He made a pan-handle incision, then pushed the peritoneum by blunt dissection from the left toward the median line of the cervix, cut through the uterus sideward from the median line, and delivered a living boy weighing 5 4-5 pounds.

CONGENITAL LOCAL APLASIA OF THE THORAX-WALL

At a meeting of the Societé Médicale des Hôpitaux, Drs. Apert and Buc presented a man whose left side of the chest was reduced to a double plane of skin of fibrous consistency. The third and fourth ribs together with their costal cartilages were missing in their anterior portions. The fifth rib was deflected downward and the second deflected upward. The grand pectoral was reduced to its clavicular and manubrial bundles. The small pectoral was wanting. The left nipple was half the size of the right one and deviated upward and inward.

We are confronted here by a malformation which has been observed in all degrees from the absence of the pectorals only up to the absence of all layers except that of the skin, with a subcutaneous hernia of the lung. In 25 percent of the cases there is also a lesion in the extremities, the fingers, on the same side. In some of these cases the hand is found in the place of the pectoral depression, a fact which permits of attributing the malformation to a presence of the hand on that side during an early period of embryonic existence.—*Gaz. des Hop.* 1910, p. 89.

FUNCTION OF THE OMENTUM

Charcoal suspended in physiologic salt solution and injected into dogs or guinea-pigs collects in the omentum. We can see microscopic heaps of phagocytes which have taken up these small foreign bodies. The same phenomena can be observed when injecting powdered magnetic iron ore, when its accumulation in the omentum can be observed radiographically in surviving animals. We can also demonstrate the absorptive action of the omentum on iron particles by observing, in a recently killed animal, how a magnet will not attract so readily iron particles which are scattered on the omentum as it does from an intestinal loop. Larger bodies also, such as glass beads, pieces of cork or of lead, when put into the peritoneum, become enmeshed and encapsulated by the omentum. Heavier particles, lead for instance, become detached after encapsulation, and with the piece of omentum about them are lodged anywhere in the abdominal cavity. The same process goes on in the case of the broad ligaments in the true pelvis.—F. and P. Heger, in *Gaz. Med. Belge*, through *Wien. Med. Woch*, 1910, col. 51.

PANTOPON AND SCOPOLAMINE

Bruestlein of Berne (*The Lancet*) proposes pantopon and scopolamine as a substitute for the volatile anesthetics. Many patients were walked into the operating room in a semiconscious condition and then were operated upon without ether. Some required a little ether, though. The results described are those following the use of H-M-C.

BULLETINS ON NATIVE DRUG PLANTS

Those interested in American drugs should send to the Department of Agriculture, Bureau of Plant Industry, for Bulletins No. 107 and No. 189. The former describes a number of American crude drug-plants, giving plates by which they should be easily identified. The other treats of dioscorea.

Quackery Versus Scientific Medicine

ONE cannot help feeling surprised that so versatile a mind as Dr. Robinson's should be capable of showing such deep prejudice and allowing it to carry him so far as totally to ignore facts and demonstrated laws of mind and physiologic functionings.

Under the caption of "Scientific Medicine Versus Quackery," in a series of articles now running in CLINICAL MEDICINE (February and March), he makes some very good statements, yet spoils much that he says by his prejudiced and narrow attitude toward all that falls outside of the pale of socalled "regular" medicine; and his meaning is unmistakable, that the *summum bonum* of all knowledge lies solely in allopathy.

Inasmuch as it is contemplated putting out these lectures in pamphlet form, to be scattered broadcast over the land as the final word against all who dare to think otherwise, I shall take up *seriatim* the statements which violate common sense, and shall try to show the other side of the medal.

It is rather tiresome to hear iterated and reiterated the statement that there can be no knowledge medical save that acquired through one channel, and this in spite of the fact that the homeopaths and eclectics are obliged to study and pass state examinations on everything practised by the dominant school, save their contracted, unscientific materia medica and its therapeutic application. To be sure, Dr. Robinson covers himself by tacitly admitting in state-licensed physicians as treaters of disease, but this is so thin a veil that no one can be fooled as to his meaning. Now as to my objections.

1. I differ with Dr. Robinson when he states that the accusation often made that the "regulars" are opposed to irregular practitioners for selfish reasons because they fear the competition and inroads on their practice; he says, it is as stupid as it is false. I say, it is in the main as true as it is sensible; and it is precisely those who have passed the stage of penury who want to organize a medical "paternity," ostensibly in aid of the "Dear Public," but in reality for selfish motives, for the acquisition of power, and for the purpose of founding a medical oligarchy the dictates of which shall be final—a beautiful outcropping of which we see in the American Medical Association.

2. We hear much, these days, about unity, and many are the urges that so-called school-lines be obliterated and that all those who attend different schools of medicine be amalgamated. To this end, not only are national assemblages called upon to advocate better and more friendly relations between the allopaths, homeopaths, and eclectics, but county societies have gone further and issued cards inviting all licensed practitioners to attend their meetings. This looks at first glance like the height of brotherly love. But wait a minute—all this is done by the dominant school. Now, should a brother homeopath or eclectic be so flattered as to attend those meetings, and in the bubbling love of new-found fellowship he should wish to reciprocate by pressing a similar invitation on the patronizing allopath to attend some homeo-

path or eclectic societies, how would he be met? A sunny, patronizing smile would flit over allo's face: "Thanks, awfully, but you know I am a busy man and I can hardly get time to attend the regular meetings." Not a face—not a face—of these "superior ducks" would ever gladden the doors of those beguiled simpletons belonging to the other schools.

Like that other orthodox, known as the Roman, we should be glad to have all Christendom united in the true faith, but, then, there is only one that is the true one—*ours*.

Now, I am sure for one, and I am equally confident that most homeopaths and eclectics will join me in the statement, that we should be very glad to have them join us, and we feel that they would be very good practitioners if they would only learn something of the practical use of medicine. It is just the idea, that "the truth is all ours," held by the dominant school, that has been the means of creating the Thomases, Tildens, Christian scientists, and all the rest.

3. I am surprised also to note that this journal advocates the issuing of this matter in pamphlet form, for I mind me that a man of iron will and energy plus to back it started a crusade against his groove-chasing apathetic allopath brethren to jar them into something besides opium, calomel, quinine, and iodine. This man's name is Abbott, and he launched alkalometry in America, and this man has done more than any other man in America to clear his school of the just charge of dry-rot. He didn't want them to get very far away either, just to give something that had something definite in view in the matter of curing disease and with some understanding of how to apply remedies to meet definite disease-conditions. A hunch, by the way, first put into practice by the eclectics, who in turn got their idea from the Thomsonians.

It is almost superfluous to add that this man was jumped on and called a heretic and honored with the cognomen that is always used by the orthodox to designate a progressive thinking man—"Quack." I have not forgotten the fight of 1907–08, when this same A. M. A. frothed, fumed and raged against the H-M-C anesthetic and abuse of billingsgate variety was heaped upon the heads of this man and his solid brother, Waugh. I have in my possession a letter from one of these men, in reply to one I wrote, in which I suggested that, if the mossbacks did not stop their work, the public be appealed to. I do not remember the exact wording of this letter, but it was in effect that it might yet be necessary to reach laymen.

Right here let me say, the public can be relied upon to give the right verdict in the end, even if they make mistakes, and they need no paternalistic guardianship. Mr. Allopath, if you have a grain of sense, you can see that you have that verdict in the demand for progress, shown by the new methods of treating disease. Had you not been blinded by the belief that you were the last word, there would never have been Eddyism or any of the dozen other ilks. While Mrs. Eddy in the main was a faker, she has, just the same, been one of the Martin Luthers that opened the way out of four hundred years of Galenism.

4. Now let us see about that half-truth as to the "stupid public" being incompetent to judge whom it shall have as a medical adviser. For the sake of being more than fair, I will take Dr. Robinson's own illustration of appendicitis or peritonitis—diffused pain in the abdomen—and contrast what would be done by a grandson of a Thomsonian—the eclectic—with the practice of the four hundred-years-ago galenic—the allopath. Dr. Robinson, in this illustration, however, really has half reversed the proceedings; for if there is one thing the allopath is ever ready with, it is the "hypo"—to relieve pain, he uses it in season and out of season. (I am not including dosimetrists, for they are only halfbreeds.)

In comes Mr. Allopath with his "expectant" method and leaves his patient practically where he found him (with sad images of grave possibilities) and one day wasted, for many times the intelligent use of remedies will half cure a patient in that time; and I make no exaggerated statement in saying that I have known of cases

going on under such methods, wasting time to unearth a Latin name to apply to it, till the patient has gone beyond recovery —and I believe that in last year's CLINIC there appeared several articles on this same subject.

Comes Mr. Grandson of a Thomsonian. This man seldom uses his hypodermic, but he has a definite weapon that will hit pain in the belly ninety times out of one hundred; he pops a dose of dioscorea or some other indicated remedy, of which he has many, into his sick man; orders it repeated every fifteen minutes till the pain stops; orders a high enema; takes a sample of the urine and a blood-smear, to go on with his diagnosis; and tells his patient not to be alarmed. It is "dollars to doughnuts" that by the next day the patient is half cured, for we all know that 95 percent of all socalled cases of appendicitis are operated upon unnecessarily.

It is only two years ago that a German investigator in Berlin proved that in 1500 cases treated, 95 percent of the patients recovered under intelligent treatment, without operation, and I am quite sure that an account of his findings was published in this journal. Dr. Robinson will surely recognize this as "authority" for the rank and file of allopaths, as it is notorious that the great bulk of synthetic compounds and mixtures generally come to them from Germany; in fact, without the German stamp of approval, your orthodox looks askance at anything claiming recognition.

5. Here is a poser for CLINIC readers; yea, verily, doth it blur the eyes of the homeopath and eclectic quacks, for it showeth not the jewel of consistency as one of the editor's gems, if he advocates spreading such stuff broadcast through the land.

Listen: "To take one more example from pneumonia," says Dr. R., "some of you possibly know that pneumonia, when fully established, is what we call a self-limited disease; that is, it runs its course and cannot be cut short or interrupted by drugs or other methods of treatment." I will not finish the quotation, for he goes on to state that it ends itself by the seventh day, and how the other fellow is called in about this time and he gets the credit of cure, and so on. Read it yourself.

I might add much that any intelligent thinker knows, but I forbear, as I am not trying to write a book on "Why the homeo-eclecto-osteo-chiro-Eddy came to exist." I just wish here to show you the inconsistency of CLINICAL MEDICINE in publishing such a pamphlet. *Helpful Hints* is filled with glowing accounts of how pneumonia and typhoid fever are being jugulated, and circulars without number have been issued, showing the merry war on this disease, redounding to the glory of dosimetry; and there have not been a dozen issues of this journal in the nine years I have taken it that such articles have not appeared from the pens of the editing staff, as well as from hundreds of physicians of repute from all parts of the country.

Far be it from me to belittle these circulars, pamphlets, etc., reports on dosimetry; for, as an eclectic, although a grandson of Thomsonism, I am also a staunch supporter of the good in active-principle therapy, as I believe it represents the first step away from orthodox allopathy; just as Eddyism has helped to open the eyes of Christendom to something better than hell-fire and brimstone.

6. What Dr. Robinson says of patent medicine and foods in the main is true; yet the glory of that conquest cannot be ascribed solely to the efforts of medical men, by the wildest flights of imagination, taking in all the recognized schools of medicine, for the very good reason that there are hundreds of workers who never saw the inside of a medical school, who have worked for these laws. In fact, most of the progress of moment to the lay public has not been due to medical largess; in truth, most of the discoveries have been due to men who never practised medicine at all, even down to the germ-theory. The progress of medicine, like its religious brother, has always been due to the knocks from the outside; for, be it said to their shame, when one of their number does have a thought aside from "authority," he is promptly jumped on and "quacked" or else excommunicated.

7. No, the practice of medicine is not like selling shoes, but the remedy to prevent people from employing a poor doctor does not lie in forcing them to get a particular brand, especially if that brand is harnessed to four-hundred-years-ago. What the people need is not someone to think for them—they have had all they will ever need of that, in the thousand years of darkness known as the "Dark Ages." What they need is a campaign of education —a bureau at the seat of government, that is empowered to spread literature and instruction, the same as the Agricultural Department is empowered to do in respect to animals.

Tell me, friend R., why is Dr. Lydston bringing suit against the A. M. A.? And let me ask you, if the heads of your own autocracy now make you feel their arrogance, what would occur should they have the power to dictate the policy of this whole country?

You know as well as I do that everything gained by the two opposing schools would be thrown out, *a la* baptisia, cactus—and perhaps the use of the H-M-C put forth by the halfbreed allopath, Abbott.

The reason the people have stopped buying their shoes of you so freely and are instead buying their medical shoes from homeopaths, eclectics, osteopaths, healers and Eddyites generally, is because they have found the shoddy in the old-school brand. Perhaps they have been blind in some instances, but even you must admit that they have escaped much calomel, opium, quinine, and bleeding, and have found a way to force something besides nihilism in medicine to the front; and let me say, had it not been for that stalwart halfbreed Abbott, your ranks would have been thinned many thousands more by desertions to the steadily advancing army of dissenters.

8. What we want and welcome is, not a paternalism that shall put into the hands of one school the power slowly to throttle all other schools, but laws that require all to study the human body and pass a fair examination before being allowed to treat disease. We do not, however, want this legislation for the reason that Dr. Robinson ascribes, namely, "protection for the dear public."

Our reason for desiring such laws is that they will enable us to clear ourselves of the charges the "dear public" was given the right to make by orthodox medicine, through the determination of its adherents to continue salivating, bleeding, and indiscriminately doping their hapless victims.

9. Statistics gathered from careful inquiry showed that more than 17,000,000 people in this country will not employ a medical doctor at all. Why? If the public are at fault in judging with regard to many disease-conditions (and I freely admit they are), it is because the medical profession have been recalcitrant to duty in not spending more energy in teaching them, and have left that to dissenters.

Half the effort to keep the medical doctor holding his "job" (yes, a small part of that $40,000 recently raised for lobbying purposes in Congress, had it been spent in sending literature to the public to induce them to vote to add a department to the Agricultural Department at Washington, the work of which should be to gather data concerning the human biped) would have made plain the way for improving the public health without putting unnecessary power into anyone's hands.

10. Please bear in mind that of the Federal medical offices now filled, 7000 are by allopaths; that no homeopath or eclectic holds a position in the army or navy; and two dozen would probably cover all those of these two progressive schools now occupying positions in the municipal boards throughout the country. And this, not because they are not successful in curing disease, but because more of their time is devoted to their profession than to politics.

Had the movers in this last attempt been actuated by a broad fellowship, such as Dr. Robinson would have us believe, having the desire solely to further the interests of all the medical schools, we should have seen, not a coterie of men from the dominant school trying to get control, but instead, the matter would have been placed before each school, and an equal number been selected from them to work for the common good, thereby manifesting some

semblance of honesty of purpose, and an already suspicious public would not have beaten the measure.

Yet no unbiased thinker will believe that such legislation is at all necessary, any more than he would believe, on reading Dr. R.'s articles, that that gentleman had a warm place in his heart for the opposing schools, for never once has he said, "Our fellow workers, the homeopaths and eclectics."

My experience in regard to the public has been that the more intelligent I can make my patient, by educating him in all the details of his condition and even telling him what I am using as well as the object, the better patient he becomes, and also the more firmly he becomes attached to me—and during eighteen years of practice but very few have forsaken me for other doctors. Yet every journal under the management of medical men, intended for the public, so very carefully avoids giving out much information worth while, save the best way to get a physician, that they meet with the deserved contemptful neglect the public now accords.

11. "Are Drugs of No Value?" and, "We Are Not Drug Worshippers." Under these two captions, Dr. Robinson says much that is good, but I am glad that he mentioned Dr. Holmes, because it gives me the opportunity to say that Holmes was a true elder brother to Dr. Tilden of Denver, the renegade allopath who has an international reputation for curing disease. It enables me also to suggest that, if the good Dr. Robinson would like to read a good book that will enlighten him as to why the medical profession, allopathic, are justly treated with suspicion, let him get Osler's "Practice of Medicine." In all that book that great advocate of chloroform never names one disease in which any drug is a sure-shot.

12. Dr. Robinson takes a shot at "anti's" of all kinds. Perhaps, had he sat by the bedside of his own child, as I have, and watched the battle between life and death go on for weeks, because his little darling had been obliged to submit to having pus injected into her or else be refused education, and then, after nearly giving his own life and seeing his wife nearly give her's in the effort to nurse the daughter back to life, and then had seen the mark of that paternal federal crime left blighten that young life, he might not be half so glib in his defense of all acts medical. And I do believe that then he would not cease cursing the authors of legislation compelling such practices. It is poor satisfaction to know that your little darling has been maimed "regularly"; and bitterly have many of us found that "we shall know better next time."

No, Dr. R., we are not drug-worshippers, but the reason we are not is, because outsiders—the "dear ignorant public", if you please, have compelled the use of electricity, light, diet, water, and mental therapeutics. And there is not a day when I am not thankful that the public had the good sense to kick and has made possible all the "ilks" and isms.

13. "Surgical operations." No one who will unprejudicedly look at both sides of this question will doubt for a moment but that surgery has earned all and more than it gets of the execration bestowed for the unnecessary butchering it has perpetrated on an unsuspecting public; and while I am, as all conscientious physicians should be, justly proud of the achievements of modern surgery, yet I am sure the "dear public" need more education against its abuses than for its uses, for they are not slow to appreciate the good results of any practice.

14. "Drug-dopers." Here Dr. R. gets in some good work. It is true that all methods of treatment are now brought into use, but if it had not been for outside pressure it would not be so. I remember how massage was fought by the medicos twenty years ago, psychotherapy denounced as a humbug, static electricity opposed, and water-cures ridiculed. Emerson said, "If you want to know what you are like, remember that each friend represents some phase of your character." Thus poor old hidebound allopathy may find "sectarian number one, two, three," etc., each like parts of a patchwork quilt represent a kick it has received as the indictment from an outraged public.

15. That the public have been given the right to make most of the charges here enumerated is clear to all, and, while it is true that the three schools do agree in many particulars, the two schools which have fought till recognized as a power are but a double reproach to the attempters of federal-allo-paternalism.

There is no reason on earth why the eclectic should not use any remedy, for that is what the name indicates—he was but a protest against the determination of the old school to hold him to four hundred years ago.

The close of Dr. R.'s article (in the February number), mentioning the great cheerfulness with which homeopaths and eclectics are received, is a "hot one." It deserves no comment from me. It stands alone, and one has only to read the last line to see clearly which way the frog would jump if we could but have federal paternal health.

In closing let me say (lest it be thought I am not competent to criticize things allopathic) that I was first graduated as an allopath; nearly died from tuberculosis under San Francisco's finest; cured myself by means of fasting, fresh air, exercise, and water; nursed three years under the best allopaths in San Francisco, San Diego, and Los Angeles, and that the men who employed me were leaders on this coast, and one of them was for four years first assistant under Dr. Osler, of Johns Hopkins. Never, in intimate private talks with these men, did I hear one of them express anything but absolute nihilism so far as medicine was concerned: they pinned their only hope for curing disease to surgery. I practised six years treating diseases by means of massage, water, air, electricity, light, and hypnotism. Once, after expressing my supreme contempt for medicine, a good eclectic friend took issue with me, and after reading some of their literature I decided to enter their school and to study their theory. I finally was graduated as an eclectic, and I have never regretted it, and I am also sure that many lives have been benefited through my efforts.

F. G. De Stone.

San Francisco, Calif.

[Gee! But I do love a fighter. And this paper by Dr. De Stone is simply packed full of "scrap."

Now, I do not know just what impression it has made upon your mind, dear reader, but to me it seems that the doctor has brought out just as strongly as he knew how all the weaknesses, mistakes, bad blood, and mutual recriminations that have characterized the discussions dividing the different wings of the medical profession during the last half century. Supposing a layman read this paper (as doubtless some will), would it increase his respect for Medicine? Would it turn him away from quackery, or toward it? Would it, in short, be a good thing to circulate among your patients and mine? I think not! The fact is that all the virtues of our profession, even the few (?) inherent in and appertaining to our despised "allopathy" (I wish the doctor wouldn't use that meaningless nickname), are so assiduously hidden that we should appear to be a miserable bunch of self-seeking, narrow-minded, intolerant and essentially ignorant money-grabbers.

And *we* know, that suggests something that isn't so. I am not going to try to paint here a panegyric of the medical profession, though I beg that God may give me eloquence to do the task worthily some of these days. But I am going to say that the medical men I know are not filled with the spirit of hatred or dislike, as between eclectic, homeopathist or regular—not in this town or any town I know. I fraternize with all, and know that I am right. Nor did I see in Dr. Robinson's paper any expression unfriendly in the slightest degree to our sectarian brethren. On the contrary, it pointed out the fact, whose truth most of us recognize, that we are constantly drawing closer and closer together, as we should. And as a means to this friendlier relationship, we believe that "Ravenswood" has played an important part.

We shall never agree in everything. How unfortunate it would be if we should! But we can be and we ought to be a unit in condemning dishonesty, in our profession and out of it, and in demanding for

the medical profession what no one seems very much inclined to give it in these days: a "square deal."

That's exactly what Robinson did in his great paper. That's why I like it, and that's why I want to see it placed in the hands of laymen. It's brave, it's strong, and essentially true. Yet, I don't agree with all he says, but, land of Goshen! if we printed in CLINICAL MEDICINE only the opinions that agreed with ours, to the word and letter, some of the best and spiciest articles would never see the light of day in these columns, and you might even have been denied the treat of reading Dr. De Stone's philippic.

How absurd it would be for us to refuse to print an article, or praise it, just because we did not agree with the author one very point, as for instance in the treatment of pneumonia. On this subject we can, on occasion, fight for our own, and all we ask is the chance. We have some drops of fighting blood left yet, besides a few friends who will help us, knowing, as we all do, what can be done to cut short the classical course of this ancient enemy. So we are not a particle disturbed if Dr. Robinson's opinions do not agree with ours even here. We'll set him right some day!

Now the question is, again, how many of the Robinson reprints do you want for distribution in your town? Price, $2.00 a hundred.—ED.]

THE CHILD-WELFARE EXHIBITS

The Child-Welfare Exhibit recently held in Chicago, with its sad, but also encouraging, illustrations of existing conditions, has come and gone, and we may well pause a moment to consider what lessons it taught us as physicians.

To this opening sentence it may be objected that at least the lessons of the health exhibit were not taught to, but were primarily taught by, physicians, that it was we as a profession who developed prophylaxis into a science, and that it is we who see our greater ulterior aim not so much in the cure as in the prevention of disease. While this may be true in a measure, much of the practical application of prophylaxis and hygiene is not to be credited to physicians, but to social workers, especially to those noble men and women who have rallied around Jane Addams and have devoted their lives to settlement work.

That settlement work has accomplished much, that it has brightened many lives, has, directly or indirectly, saved many and restored a goodly number to health and to usefulness will not be denied. It is to the members of the settlement work, therefore, that most of the credit for whatever may have been accomplished is due.

The social problem, of which the child-welfare movement is an integral part, is a very complicated one and involves all classes of society, although it is most difficult of solution as regards the lower and lowest strata.

It has been suggested, and it is undoubtedly true, that the present state of social conditions is sadly like that prevailing during the decadence of the Roman Empire, and many are the Cassandras who have found in this similarity a text for gloomy prognostications. But while then as now the masses were miserably poor and ill-housed, subject to privations and diseases, while then as now the great wealth of the commonwealth was centralized and the substantial middle class had lost in backbone and in its sturdy honesty, through its mad striving to ape the wealthy, in those times no effort was made to remedy the ugly conditions. It was deemed sufficient, by the governing classes, to supply *panem et circenses*, and thus to quiet the clamor of the unfed and of the great masses.

We of today, however, have learned that a temporary forgetfulness, induced by whatever means, does not improve matters. We have learned that the only way is to attack the evil at its source and to change existing conditions if we wish to secure results and to save ourselves from an uprising of the submerged portions of society.

Unfortunately, this is more easily said than done. Not only the social, but also the commercial and in fact all present economic conditions are so complex and above all so closely bound down by property rights and personal privileges that their

betterment is all but impossible. Furthermore, while much has been accomplished in improving conditions in factories and workshops, the tenement problem has barely been touched, in spite of all the model tenements, the mothers' classes and district visitors; and it is, after all, the home life, or the absence of it, that determines the character of the people. Even if it were possible to make use of Nevo's expedient, or to repeat the experience of Paris in the early reign of the third Napoleon and our own experience in 1871, by burning down the tenement districts, they would soon after rebuilding be just as bad and just as congested as they are now.

The only way in which we can hope to secure an eventual improvement is by educating those who should be most vitally interested, by making them want the improvement, by teaching the tenement population. It has been said that these parts of our population, and more especially the degenerates and weaklings, the cripples and the sick, *et id omne genus*, supply the greatest contingent of the unfit of the race, which according to the inexorable law of nature must be weeded out and eliminated.

The idea has often occurred to the writer, especially in his dispensary work in different cities, that we as physicians set ourselves against nature, by attempting to save those who cannot be saved, in that we prolong the lives of the unfit to a time, perhaps, when they become capable of propagating their kind, leaving a family of unfit, of degenerates and weaklings to the charge of the commonwealth. And, yet, after all, these people are ill, and weak, and degenerate, not of themselves, not of necessity, but owing to conditions which are amenable to treatment.

It is here that the social-settlement work in all its different phases, and including such splendid efforts as those put forth by the Salvation Army and the Volunteers of America, has found its field, and it is here that the improvement must begin.

By being taught how to make the best of their conditions, the tenement people are insensibly taught how to improve their conditions, so far as lies in their power. And of this lesson, once learned, there must inevitably spring a desire for a cleaner, better living, and a conscious effort to secure it. With the active cooperation of those whom we wish to benefit, it is manifestly possible to improve matters, and to change the important fatal factor of environment, which is now productive of so much harm, to one that eventually shall make for the betterment of the race.

If it is true that the highest birth-rate prevails among the poor and the poorest, the future of the race is unavoidably linked with the fate of these clasess. The sooner we understand this thoroughly and act upon it, the greater and more energetic will be the efforts put forth toward an improvement of environment. That such effort, great and noble and helpful, has been made for years, we were more or less dimly conscious of in an impersonal sort of a way. How much can be accomplished, how much is indeed being accomplished right now, was beautifully illustrated in the Child-Welfare Exhibit.

If we are to begin at the beginning, it must be with the children. Improve their lot, teach them to do their own part in the general improvement, and future generations will reap the benefit of the seed sown today. The exhibit was a valuable object lesson and one that evidently was appreciated. All honor to those who devoted their time and their energies to make it possible.

H. J. Achard.

Chicago, Ill.

WARNING AGAINST THE EMPLOYMENT OF ALCOHOL

Being in my seventy-second year, and having been graduated from the Medical Department of Columbia University, New York, in the year 1864, I have passed a fairly long life as a doctor and witnessed many changes in the routine practice of medicine. At the time I was graduated, stimulation was but another name for whisky. "Rock and rye" was considered as the foundation treatment for tuberculosis.

Today it has been conclusively shown by clinical, laboratory and sociological evidence

that alcohol is not a food, but rather that it is a depressant, a poison (and an excitant), that it interferes with tissue metabolism, and, hence, favors the retention of toxins in the body.

Investigations in the laboratory and clinic of Dr. H. J. Berkley, of Johns Hopkins, on the action of alcohol have shown that it causes a fall of from 15 to 20 beats a minute in the heart's action, accompanied by some hardening of the quality of the pulse and followed by muscular latitude and mental confusion.

Prof. Winfield S. Hall of Northwestern, University, says that alcohol produces a toxic effect on living substance. It makes the body more liable to other toxic influences. It cannot be considered as a food. It decreases the efficacy of muscle, glands, and nervous system. It seriously impairs fecundity, leading to race suicide.

It is claimed by some, because alcohol is found by investigators in muscle-tissue, that it is, therefore, a normal constituent of the same. Uric acid and carbon dioxide also are found in normal tissue, hence they too "must be normal constituents" (!). The fact is, they are all three the result of tissue metabolism, and if retained in the body are poisons.

Prof. H. W. Wiley of the Department of Agriculture characterizes alcohol as a poisonous substance.

Dr. H. J. Achard, in an essay on alcohol as a factor in the production and development of tuberculosis, cites full literary evidence that alcoholism is a serious predisposing factor for consumption. He cites Cornet to the effect that the ciliated epithelial cells are, by alcohol, temporarily weakened and paralyzed, so that one important defensive provision against the inhalation of tubercle bacilli is rendered inactive. Another harmful consequence he sees in the weakening of the heart-muscles.

Prof. S. A. Knopf says "that alcoholism is one of the greatest direct and indirect causes that prepare the field for the tubercle bacilli is now generally conceded, not only by physicians and sanitarians, but also by sociologists who have studied the question. It is not only a phthisiogenetic disease *par excellence* in adult life, but, according to statistics carefully kept in European hospitals for scrofulous children, in more than 50 percent of the cases either the father or mother, or both, were found to be or to have been alcoholics. In a subsequent chapter we shall find these ideas justified by experiment."

Dr. Geo. W. Webster, of the Illinois State Board of Health, claims that the alcohol-problem is more important even than the tuberculosis problem, costing as it does the state far more and causing directly or indirectly even a greater percentage of all deaths than does tuberculosis.

Prof. W. T. Sedgwich has called upon the medical profession to stand for temperance as one great essential of public health, and Dr. Lewis D. Mason emphasizes the fact that inebriety is a fertile source of crime, pauperism, insanity and disease. At least four-fifths of the criminals and degenerates of a community may be traced to this cause alone. Facts go to demonstrate that it is an important factor as a cause of suicide, disease, accident, and adult-male deaths from accident, and either directly or indirectly explains the mortality statistics of our great centers of population, especially among the adult-male class, in excess of the normal death-rate in an ordinary sober community; and, finally, Dr. Howard A. Kelly is equally severe in his condemnation of alcohol.

The foregoing facts should prove to us definitely that alcohol is a dangerous medicine even for the purpose to which it has frequently been put, that is, as a stimulant. Moreover, in shock, syncope and heart failure we have cactin, digitalin, atropine, strophanthin. These active principles I have used the past fifteen years and found them superior to any supposed good of alcohol. Hence, we, as physicians, can find no field of use for alcohol in our practice.

Therefore let me solemnly adjure you, my brethren, as you regard your oath, subscribed at the time of your graduation, and with a full recognition of the responsibility that rests upon your shoulders as doctors and conservators of the public health and physical well-being, that you lend your strength and influence to put down and out this most pernicious and wrongful traffic in drink.

I trust that what is written will prompt physicians to be guided accordingly.

A. T. Cuzner.

Gilmore, Fla.

REFLEX ERUCTATIONS

A brief report of the two following rather unusual cases may be of practical interest and may be of help to some brother in the profession.

Some years ago an unmarried woman of about thirty came in to consult me. The woman could hardly speak ten consecutive words without being interrupted by most violent erucations, which, she told me, had been going on for several weeks, although she had been to several different doctors for relief from her "stomach" trouble. Her tongue was clean, bowels were regular, and the breath was not in the least offensive. I never heard such violent belching in all my life, and it continued without cessation except when she was asleep. It was clearly a reflex, and by a process of exclusion as well as from the presence of dysmenorrhea I diagnosed uterine irritation.

Upon examination I found a pinhole os. So I administered a little chloroform and forcibly dilated the cervix. When she recovered from the anesthetic the eructation had disappeared. I was doubtful whether the beneficial result would wear off with the effect of the chloroform; but it did not, nor did the trouble return until her next menstrual period, when she had a very slight attack. Three dilations all told cured the condition absolutely.

About a month ago Mrs. W. R., age 35, mother of seven children, came in with an exact duplication of the above-described condition. I got a history of five miscarriages, the last of which occurred five days after a heavy fall, in January. Ten days after the abortion occurred she got out of bed and was immediately taken with these violent eructations, which continued until she came to my office. She told the same story of indigestion, but added that she had no distress in her stomach at all, her appetite was good and bowels regular. She asked what I could do for her stomach, and I replied, "Nothing; there is nothing the matter with your stomach."

I examined her womb and found it large, soft and flabby, with a cervix that looked exactly like a cauliflower, from the number of lacerations. On passing in a small blunt spoon-curet (there was no need of dilating that cervix), I found quite a lot of decidua, mucus, shreds and pus, which I removed easily and almost painlessly without an anesthetic. I swabbed the uterus well with ichthyol-glycerin, packed the patient into my car, took her home and put her to bed. Eructations stopped before she left the office, and she is perfectly well now, barring that she has been belching once or twice a day. I told her that the lacerations would have to be remedied, and to this she agreed.

Hugh Jameson.

Titusville, Pa.

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[You are right, Doctor, these cases are well worth reporting.—Ed.]

MERALGIA PARESTHETICA

I have under treatment a case of meralgia paresthetica which may be of some interest to you. The patient, Mrs. B., aged 51, is strong, well nourished, with family history good, her health perfect until five years ago, when she began to be troubled with constipation and an abnormal sensation of the parts supplied by the external cutaneous branch of the femoral nerve, there being numbness, stabbing pains, excessive tenderness, which finally became unendurable.

In August, 1909, she came to me for treatment. I thoroughly cleaned out the bowels with calomel, podophyllin and bilein followed by a laxative saline and a high enema of kerosene, one pint. I kept the bowels clean with the saline laxative, anti-constipation granules and intestinal antiseptics; I also removed the hemorrhoids. For improving the condition of the kidneys, I gave her a formin compound. I tested the urine twice a week and kept it near normal, sometimes slightly alkaline. Its specific gravity and the solids were normal; no indican.

The arsenates of iron, quinine and strychnine, and nuclein, also lecithin, were given

for two weeks, alternatingly with zinc phosphide for one week. Atropine, zinc valerate, and local applications were used to relieve the pain. I intended to try to hasten the matter with crotalin, but after my experience with a former case I concluded to wait.

At the present writing the pain and numbness have entirely disappeared and the parts seem normal, except that after a long walk there is felt a tingling sensation along the nerve.

—, Illinois. E. R. C.

[As to crotalin, it should not be forgotten that Dr. Mays is now recommending the use of much smaller doses, i. e., 1-400 of a grain. The doctor's treatment of this case of meralgia was most excellent, and he has demonstrated once more that the right remedies for the pathologic conditions present in the individual pushed *to effect* invariably produce results.—Ed.]

AN OBSTETRIC FIGHT IN THE PHILIPPINES

The experience I wish to relate happened in the Philippines some years ago. One of my patients was expecting to be confined soon. I had delivered the lady before, when she had an easy time. I was watching the case carefully and giving preparatory treatment. For all of these reasons I was expecting no trouble.

I was called one morning, and was told that the bag of water had burst, but there were no labor-pains. (The patient had been getting caulophyllin.) Now, brother, what would you have done in such a situation? Well, I had no consultant, and my own unaided wits failed to produce any reason for immediate interference; but I did see an unusually fine opportunity for an accurate examination, and I made the most of it.

The patient had no superfluous adipose tissue; a flaccid uterus was collapsed around the fetus; a softening os would not quite admit the finger. I never heard the fetal heart so plainly. The absence of amniotic fluid and the flaccid condition of the uterus and abdominal walls made the outline of the fetus apparent even to the eye. I took plenty of time and made all examinations carefully and repeatedly. I do not see how I could have been mistaken in my diagnosis. It was a vertex presentation, L O A position. The head was, apparently, firmly engaged in the superior strait. Everything lovely, but no pains. What would you have done next, brother doctor? I went home and left the case to nature.

The next call came about thirty-six hours later. And here is where I made my mistake. I should have provided myself with a full set of instruments, chloroform, and an assistant; but I was so sure that I should have no use for any of these accessories that I neglected to do so.

At the house I found the patient walking about, making preparations. She said that the game had been opened by a period of violent activity on the part of the fetus, lasting about twenty minutes. (I saw this fetus, on a former occasion, push out the abdominal wall a full hand's breadth.) Pains were strong, lasting about a minute, and coming on at intervals of about ten minutes.

As I was crossing the room I noticed something dark on the floor. Stooping to examine it, I found meconium! Sure enough, it proved to be a breech presentation. The uterus was now firmly contracted about the fetus. Version was impossible without previous chloroform anesthesia and instrumental dilation.

Now I found that, owing to an unavoidable concatenation of circumstances, I was alone in the house with the patient, except for a two-year-old boy asleep in the next room. It was ten o'clock at night; the rural town was fast asleep, and there were no neighbors within call. As I did not dare to leave the woman, I planned to delay expulsion as long as possible, and then deliver rapidly when dilation should be complete. At midnight I injected half of an H-M-C tablet, and at one o'clock, the other half. The patient slept the rest of the night, but woke up about half past five and aided vigorously in the delivery.

When I started to deliver, I noticed that the temperature of the fetus was the same as that of the mother. Then I found the

cord ribbon-like and pulseless. As soon as I could I brought down one foot and then the other. The cord was found drawn tight around the neck. A minute's pause, and the head was delivered. The whole process could not have taken more than fifteen minutes. I tried all possible means of resuscitation, to satisfy the mother, but the baby stayed dead. The mother suffered no lacerations, and made a rapid and uneventful recovery.

Now I want to know what killed that child. Is it possible to suppose that he turned a summersault in the womb, and hung himself with his own too short cord? Oh! I forgot. I used H-M-C. That is what did it, of course!

CHAS. F. MORRISON.

Klamath Agency, Ore.

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[Of course! That's the usual style of reasoning. But who will volunteer to answer the question?—ED.]

HEMORRHAGIC MALARIAL FEVER, OR YELLOW-CHILLS, OR BLACK-WATER

I have read with interest the article of Dr. Soloman on black-water fever in Costa Rica (page 321). The same disease is prevalent in the western section of Alabama, although called by a different name, being known among physicians here as hemorrhagic malarial fever. By the laity it is commonly called "yellow-chills," from the saffron- or lemon-color of the skin, which resembles very much that of yellow-fever. I have had considerable experience with this disease—had two attacks myself.

Hemorrhagic malarial fever is one of the most fatal diseases with which we have to contend. It is found only in intensely malarial districts or among those who have been exposed to malarial influences, in consequence of which it is considered a malarial infection, while from its always being ushered in with hemorrhage from the kidneys, it is called "hemorrhagic malarial fever."

There is one peculiarity about this disease that I have not seen stated elsewhere, namely, that the negroes here have been found to be peculiarly exempt from it, although the blacks outnumber the white population in our county (Sumter) five to one, and are generally more subject to malarial attacks (due, I suppose, to their greater exposure to the mosquito), yet I have never seen a single case of hemorrhagic malarial fever in a negro.

I shall not now enter into the pathologic anatomy of this disease; suffice it to say that it is on the decrease in our county since we have learned to screen our houses from the mosquitoes.

As to the treatment, I fully agree with Dr. Soloman in everything he says in that respect. However, he strikes the keynote when he condemns the use of quinine, though some of our Alabama doctors still persist in using it. As he points out, "quinine irritates the kidneys and only gives that already overburdened organ more work to do to eliminate the drug." Furthermore, the agent is not indicated.

Microscopic investigation has demonstrated that the chill which ushers in the disease causes a disintegration of the red blood-corpuscles and the destruction of the malarial parasite, so that we have a toxemic condition to contend with, the treatment for which condition may be summed up in four words: Elimination—prompt, quick, heroic.

The great danger in this disease, as Dr. Soloman has truly said, is suppression of urine by the blocking up of the uriniferous tubules, and unless we can prevent this by vigorous elimination, uremic intoxication will be the result, ending in death in twenty-four hours.

My method of treatment is as follows: Give 20 grains of calomel at once, followed by magnesium sulphate, 1 ounce, and repeated every two hours till effect. Keep the patient well under blankets; apply hot-water-bottles to the loins and along the spine till he is bathed in a profuse perspiration, then sponge him with warm diluted alcohol and wipe him off with a warm dry towel. See that the elimination is faithfully kept up, and in thirty-six or forty-eight hours the urine will be free from blood and the patient will be practically safe, except being very much debilitated.

To combat heart failure, I give strychnine and sparteine, alternately every four to six hours, as indicated. In extreme cases, I give high enemas of normal salt solution every three hours, or else hypodermoclyses. Good nourishing diet (buttermilk is best), and some one of the reconstructive tonics will complete the cure. I have been uniformly successful with this treatment, which is along the line pursued by Dr. Soloman.

I would advise those who have never had any experience in the treatment of this terrible malady to read Dr. Soloman's article carefully and follow his treatment faithfully, and they will not regret it.

D. S. Brockway.

Livingston, Ala.

FEEDING THE TUBERCULOUS

For some time past the idea that the tuberculous patient should be "scientifically stuffed" has had a great vogue and a wide acceptance, but I am glad to see that the pendulum is beginning to swing back toward what I believe to be the rational position on this question.

In my earlier years of practice I "stuffed" my tuberculous patients, and had the sorrow and chagrin of seeing the appetite fail altogether, and in some cases the digestion become so deranged that it took a long time to get it back to a normal condition.

Regarding fats, I believe that those which are acceptable to the patient are a valuable addition to the diet. I always advise that butter and cream be taken as freely as may be without satiety, and if olive oil is agreeable, I encourage its use. The petroleum emulsions are well borne by some patients, and I have felt that at times I have seen benefit from their use. As to codliver oil, I have rarely had a patient who could take it for any length of time, even in the most "palatable" preparations, without developing a disgust for it that often extended to all other foods as well. The "wines of codliver oil," which are said to contain "all of the oil except the grease," I consider to be largely a bait for suckers; for what under heaven do we give the oil for if not for the "grease?"

My advice to my tuberculous patients regarding their diet is: "Eat all the nourishing food that your appetite calls for, taking care not to clutter up your insides with knick-knacks so that there will be no room for the substantial things. Eat at your regular meal times and at no other times unless your appetite calls for food between meals, and then take something easily digested and nutritious (a raw egg in milk, for instance). Keep a record of everything you eat and how much, and bring or send it to me as often as once a week, so that I can keep tab on you."

As the treatment progresses in its various phases, including the cleaning out and disinfection of the alimentary canal, I find that the appetite increases, and when that occurs, the diet is always increased to meet it.

The more I study and observe and consider the matter, the less philosophy can I see in violating such well-recongized physiological laws as those regarding the necessity of rest for the stomach between the regular meals, convinced that surplus food, taken with the hope of increasing bodily vitality and resistance thereby, becomes a poison to the body.

George B. Lake.

Wolcottville, Ind.

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[We are glad indeed to see that the idiocy, nay, the criminality of indiscriminate stuffing in tuberculosis is becoming more and more apparent to the minds of practising physicians. The only thing that astonishes us is that it has not become apparent long ago. The utter want of scientific and commonsense foundation of the principle of forced feeding should have given it its quietus long ago. It is not what the patient crowds into his stomach but what he assimilates that is of benefit to him. Recent investigations and clinical experiments have shown that the excessive proteid diet which is praised so much by many is harmful rather than beneficial, especially because it is liable to set up autointoxication: because the enfeebled body-chemism is incapable of assuring an efficient elimination. It has been satisfactorily shown that tuberculous patients

are much more apt to do well on carbohydrates and fats than on proteids, and that the latter need be given in only very small amounts. Speed the day when the poor consumptive patients shall no longer be subjected to this inhuman stuffing process, and when their digestive organs may get a chance to recover from their previous strain.—Ed.]

A DIAGNOSTIC SIGN OF TUBERCULOSIS

In *The Journal of the American Medical Association*, C. L. Wheaton calls attention to a new sign which may be of diagnostic value in pulmonary tuberculosis. In these cases, when the skin was pulled away from the fascia over the affected area, it was freely movable, and not adherent to the muscle-fascia. This was especially noticed in cases of early unilateral involvement, and proved to be so only on the side affected by tuberculosis. It was more pronounced over the original area of infiltration. Occurring on both sides, it indicated bilateral involvement. On the affected side the skin could be drawn from the chest-wall with ease, as compared with the other side. The skin was also thinner than that upon the sound side.

THE CARELESS ADMINISTRATION OF ANESTHETICS

Chloroforming is an art. To hand the chloroform-bottle to any Tom, Dick, or Harry, has been disastrous many times. It is time enough when the emergency arises and we have to employ an unskilled hand; but, alas! how often do we see it done without the least necessity. Office girls, some relative, an accidental visitor, or a patient who just happens to be in the office, all such are sometimes recruited for the giving of an anesthetic. If the patient only "goes to sleep," that is sufficient.

But what do these folks know about the consequences, about too much or too little, about the contraction of pupils, about the rhythmic breathing, the retraction of a tongue, and all that? Can they watch the pulse? Can they differentiate between a cantering and a pendulum rhythm? Can they judge about the right time to give a hypodermic injection? Can they recognize danger signs?

But it is not so much about the layman's knowledge I want to speak. I want to state that I have witnessed, many times, the giving of an anesthetic by professionals, without any precaution whatever. I have found out that in some instances chloroform has been given which was decomposed—chloroform which was kept in colorless bottles exposed to rays of light. I have seen the chloroform administered to a patient sitting upright in a dental chair when he was being operated upon for nasal polypus.

If a real anesthetist knows his duty, does his duty, nobody needs to die of an anesthetic.

D. Zwightman.

Niles, Mich.

DO IT NOW

When I cash in, and this poor race is run,
  My chores performed, and all my errands done,
I know that folks who mock my efforts here
  Will weeping bend above my lowly bier—
And bring large garlands worth three bucks a throw,
  And paw the ground in an ecstasy of woe—
And friends will wear crepe bow-knots on their tiles,
  While I look down (or up) a million miles,
And wonder why those people never knew
  How smooth I was before my spirit flew.

When I cash in, I shall not care a yen
  For all the praise that's heaped upon me then.
Serene and silent in my handsome box,
  I shall not heed the praises or the knocks;
And all the pomp and all the vain display
  Will just be fuss and feathers thrown away.
So, tell me now, while I am on the earth,
  Your estimate of my surprising worth—
Oh, tell me what a candy kid I am,
  And fill me full of taffy and of jam,
Spread it on good, like honey's spread on bread—
  Don't wait to shoot the bunk till I am dead.

—Walt Mason.

FOREIGN BODIES IN THE ESOPHAGUS AND TRACHEA.—ATROPINE

What to me was a new method of removing a fish bone which was lodged in the esophagus was a hypodermatic dose of 1-10 grain of apomorphine (green!). The answer came in less than three minutes—and a search of the vomitus revealed a codfish bone one and one-half inches long. It was puncturing the wall of the esophagus, as evidenced by some hemorrhage, and the use of an umbrella-probang would have

made a bad matter worse. Some depression followed the action of the emetic, but it was not much more than the natural reaction following the excitement and was remedied by a dose of strychnine. It was a very natural thing to think of this employment of apomorphine, using horse sense and general principles.

Foreign bodies in the trachea or bronchial tubes are not of frequent occurrence, but I have had two cases within the last few years, which comprise all coming under my care or notice during a practice of thirty-four years.

The first case was that of my own grandson, two years old. He was given or got hold of some roasted coffee beans, and inhaled one. The strangulating effect was very severe for a few hours, and paroxysms of coughing came on less frequently for a week. The obstruction would seemingly float up to the larynx during the coughing fit and settle down again to what seemed the bifurcation of the trachea, as evidenced by auscultation.

My advisers all seemed to think the child could cough up the coffee bean if he inhaled it, until I consulted Dr. Oldham, of Wichita, who suggested immediate operation, which I permitted him to perform.

The operation was, apparently, a failure until the surgeon was preparing to arrange closure of the wound, when the patient began struggling for breath, and the coffee bean popped out of the wound to the height of two feet. A good recovery followed. Unfortunately, an attack of pneumonia, followed by measles, was too much for the vitality of the little hero. I have thought infection may have occurred before operation.

The other case was that of a little 3-year-old girl. She was playing in the corn-bin when a grain of corn was inhaled, as we supposed, although the obstruction to the respiration was not very severe. Operation was decided upon, and was done the second day, all the surgical talent of Wichita being present, and they examined the patient by auscultation. Operation was recommended by all, including a visiting scientist from Berlin. The result of the operation was complete relief of the dyspnea, but no foreign body was ever found. What was it? A soluble substance? or was it inhaled deep into the lungs?

In my recent sickness, atropine has been of great service as a respiratory stimulant. Combined with strychnine, which is also in that class, the cardiac asthma or dyspnea in edema and in various other conditions is relieved in a specific and rapid manner by atropine.

To relieve "air-hunger," it is only necessary to give a small dose, 1-200 grain of atroipine and if the desiccating effect is counteracted by pilocarpine, as it can be, we have a combination excelled only by H-M-C. The strychnine becomes more necessary if pilocarpine is used.

A. J. McAdams.

Harper, Kan.

HINTS FOR OBSTETRIC WORK

First and foremost in the work of the general practician is obstetrics. It is not the most agreeable part of his practice (except to a few), but it is the one thing which will get and hold more business than anything else, because, "If you please the ladies and the babies, your fame will stand through ages."

When the obstetric call comes, "get there quick." The woman appreciates it, and, then, if there be a wrong presentation you can the better correct it. Be kind and sympathetic, the woman needs it and expects it, and it is the best kind of a "business getter." When the pains get aggravating and the woman restless give her a half tablet of H-M-C with the needle, and she will quiet down, rest between pains and bless you for the relief. Repeat in one or two hours, as needed, and when the head has passed the arch give her a few whiffs of chloroform. When it is all over she will say she has had the easiest labor she ever passed through.

Just a word of caution here: *Do not neglect the woman immediately after the child is born and the placenta delivered.* This is a critical time and she should be watched carefully. If pulse is above 90, be on the lookout for a bad hemorrhage, because it will usually occur; I always have my fountain-syringe full of hot lysol solution

and ready for instant use; then if a hemorrhage starts I give an intrauterine douche with this just as hot as she can stand, in fact a little hotter than she *thinks* she can stand; then vigorous massage over the uterus with ice-cold compresses, this of course when the bleeding is *not* due to a lacerated cervix. When the cervix is lacerated I pack with iodoform gauze and omit the massage.

If you are careful and do not get in too big a hurry there is very little danger of having a perineal laceration, but should there be one, repair it as soon as the placenta is delivered. In my ten years of practice I have only had two perineal lacerations. These were repaired at once, with good results.

In conclusion let me say, *do not get rattled*, no matter what the nature of the trouble, especially in the obstetric chamber. Keep cool, use your brain, keep the attendants busy and thus out of the way, and let them know quietly but firmly that you are "on the job." By doing this you do not alarm the patient and can handle the case much more satisfactorily.

Union, Ore. C. H. Law.

THE THREE FORMS OF SUNSTROKE

The following suggestive editorial is quoted approvingly from *American Medicine* for June, last year.

The three forms of sunstroke are very much misunderstood by physicians, even in the tropics, and curative means are often misapplied.

The form with high fever and more or less profound coma is now known to be due to heat alone and should be called "heat-stroke" or "thermic fever," for it often occurs in hot-fire rooms or at night. Moreover, negroes suffer from it unduly if they are exposed to a high degree of external heat which their black skins absorb so easily. In their natural state, they are rarely, if ever, exposed to temperatures of over 95° or 100° F., and in a fire-room of 150 degrees' temperature they suffer more than do white men.

The second form, that of "heat-cramps," now worrying the naval surgeons, seems to be solely due to withdrawal of body-fluids by excessive perspiration which has not been replaced by frequent drinking of copious draughts of water. It is often miraculously cured by intravenous injections of saline solutions, or by high enemata if the patient is not too far gone to absorb through his mucous membranes.

The third form of collapse, with little or no rise of temperature or loss of consciousness and which is generally labeled "heat-exhaustion," is gradually being recognized by tropical experts as due to the effects of light. It is often seen in places and seasons when heat-stroke does not occur. Its prevention is merely a matter of avoiding exposure to excessive light, irrespective of what is done to avoid overheating. The puzzling cases are those with a mixture of all three conditions, for sunstrokes are of every conceivable grade between these three forms if the patient has been exposed both to heat and light and has suffered from excessive perspiration without the use of plenty of drinking water.

The prevention of all forms of heat and light sunstroke is so simple and rational that it is more than amazing to find wrong advice given by those who should have kept up with the investigations of the last few years. A recent textbook actually advises abstinence from drinking water in conditions of great heat, when everyone knows that it must be taken to replace perspiration, whose evaporation carries off surplus heat. Abstinence also prevents proper elimination through the kidneys, brings on numerous symptoms of toxemia, and the highly concentrated urine has been known to cause inflammation of the whole urinary tract. As soon as perspiration is checked by increased specific gravity of the blood, the body-temperature at once rises to a dangerous point. Then there are the sunshine-cranks who advise people to expose the naked body to the midday summer sun, and who do not seem to realize that they are thus causing more or less prostration.

It is high time that American physicians learn these lessons and prevent the attacks which are so numerous every summer in and out of the cities. If cool, shady places

cannot be found and one must expose himself to heat and light, let him avoid overexertion if he can, provide himself with opaque clothing for its shade, and drink sufficient water to keep up a copious perspiration and free flow of urine.

DIETETIC INTEMPERANCE IN "TEMPERATE" PEOPLE

There is a nostrum element strongly in evidence in alcoholophobia, tobaccophobia, theinophobia, and allied obsessions which reduces all etiology and all therapy to a single element. The "falsehood of extremes" is peculiarly evident here and prevents proper remedies in degeneracy, morbidity, and sociology. The error of the old Pharisees, who made long prayers and devoured widows' houses, and berated Christ as a friend of wine-bibbers, crops up in the mendacious statistics which charge everything deleterious to alcohol, tobacco, tea or coffee, and ignore gluttony. Discussing this question, Seymour Taylor, in the December 28, 1910, CLINICAL JOURNAL remarks:

"Many cases of hemorrhagic hemiplegia occur in men and women who have been most careful as regards alcohol. The socalled learned professions—the church, the bar, and medicine—easily furnish us with many names of eminent men who have died from hemiplegia, and, yet, who have led almost abstemious lives, at least so far as alcohol is concerned. They have led strenuous lives spent in mental work, and their cerebral vessels have not been able to bear the strain. On the other hand, I have seen a goodly number of hemiplegias in teetotallers. There is as much danger in the knife and fork as in the wineglass, and total abstainers, as a class, eat more than moderate drinkers.

This is the sort of daily life which many men belonging to the class wrongly termed abstainers lead, at least so far as their gastronomic exercises are concerned. A man of this class has an uncommonly good appetite, for which he is duly thankful, and at the same time unduly proud of. He consumes, for breakfast, ham, eggs, and perhaps a chop, or some cold viand; he likes a lunch consisting of at least two "meat" courses; at dinner he indulges in good soup, followed by fish, poultry or game, butcher's meat, and sweets. Probably at least two of these meals, and sometimes between, he imbibes a large quantity of that very nasty and by no means harmless concoction called cocoa, and toward the end of the day he may pat his comfortable parietes and thank God "that he is not as other men."

A paralytic stroke will overtake that man as soon as, nay, sooner than, it will a man who does not wear a ribbon, but who has enjoyed the good things of this world in moderation and is thankful for them. If overeating produced half the visible effects on our legs or made our speech anything like as thick as does alcohol, how many would escape the frequent attentions of the police and appearances before the magistrate's court? Intemperance, therefore, is by no means limited to alcohol.

The truth of this is peculiarly well illustrated in the life of Henry Harland (Sidney Saska), the novelist: "Take," remarks J. R. Meader in the February *Business Magazine*, "Henry Harland, whose life was snuffed out a few years ago in payment for a debt which he owed outraged nature. When a young man and struggling for recognition, he worked all day at desk in one of the municipal offices, depriving himself of all but four hours' sleep, that he might spend the night perfecting that almost inimitable studies of Ghetto life that he printed under the pseudonym of 'Sidney Lusk'.

"To some degree Henry Harland won the fame that he desired. At least he succeeded in writing two or three novels that numbered among the 'best sellers' and that made his name known wherever English fiction was read. Before he had fairly had time to enjoy this success, however, and while he was still scarcely more than a youth, death came suddenly. The physicians agreed that it was due solely to the fact that he had undermined his constitution by loss of sleep.

"In the ordinary sense of the word, Henry Harland was a temperate man. He neither drank nor smoked to excess, yet his intemperance, while pursued in a differ-

ent direction, weakened his body to the point of dissolution. He paid for his success with his life, and it is an exorbitant price to pay If he had slept a little longer he would have lived longer. He might have been a little older when fame finally smiled upon him. The big checks from the publishers might have been delayed for a year or two, but the man would have lived to enjoy them. The brain, unwearied, would have produced still greater works, and the success which came at last might have been that undying fame that is so different from the little brief applause for which so many men and women seem willing to lay down their lives." JAS. G. KIERNAN.

Chicago, Ill.

WHISKY AS A LIFE SAVER.—SUNSTROKE

I have read so many articles, in your valuable journal, about the useless administration of whisky for snake bite, with the assertion that whisky is a depressant, that I am constrained to say a word.

The primary action of whisky is a stimulant to the heart and a dilator of the capillaries. Therefore it is *the* remedy for the four following pathological conditions, at least:

The poison of snake bite depresses the heart so much that the victim complains of the sensation of gripping of the same as by the hand or a vise, and enough whisky to counteract this effect gives relief at once and will save more lives than all other medication.

In heat-stroke or sunstroke, the capillaries are contracted, the skin is pale, and the internal blood-vessels are engorged. Whisky is the remedy, because it stimulates the heart and dilates the capillaries, and is worth more than all other drugs.

When a person has been exposed to a cold, marrow-piercing wet wind until he is shaking and is chilled through and through and has gooseflesh skin—then whisky is the remedy unless he has access to a hot bath.

In low forms of pneumonia or typhoid fever, small doses of whisky given at regular intervals will tide the patient over a crisis a little better than any other drug.

Don't think that I am a "booze fighter", for I never was drunk and I vote "dry" every chance I have, but I am writing now of whisky as a medicinal agent, not as a beverage.

Also, I noticed a lengthy article on dietetics, and I cannot resist the temptation to say that the Battle Creek Sanitarium idea of dietetics is so far ahead of all other that every physician ought to visit that institution and get the idea. But as they all cannot conveniently visit the place, it would be a great help if Dr. Kellogg would write an article, each month, for THE AMERICAN JOURNAL OF CLINICAL MEDICINE, on dietetics. T. F. P.

——, Washington.

[We are always glad to hear from the other side—even of the whisky question. Nothing gives our journal more interest and value than the discussions which we are able to elicit. *We want both sides*—and we want our readers to fight for their opinions. We are frank to say that we often disagree with those who contribute to our pages, as we do in this very case, for in our opinion there is rarely a condition that cannot be combated better by other remedies than it can by alcohol. There may be and doubtless are occasional indications for its use; but that it is used too much, even medicinally, I do not believe even Dr. P. will deny.

I want to put in a word of warning against the use of whisky in sunstroke. In the cases of heat *exhaustion*, with pallor of the skin and signs of shock, to which the doctor refers, it may be given with advantage (though the triad of glonoin, atropine and strychnine arsenate is much better), but it should *not* be given in thermic fever, with flushed face, congested brain and high temperature.

By the way, what will our readers tell us about sunstroke? It's time to be prepared.—ED.]

PERMANENCY OF THE GRANULES

I am very much pleased with the helpful information I receive from CLINICAL MEDICINE, and I also like the alkaloidal med-

icines. In fact, I received from Dr. Silva, (who, with Dr. Thackeray, first made them in Chicago) some metric granules when they were in their infancy, in 1884, and I have carried a case of the granules in my pocket ever since. I use medicine in other forms, but rely on the alkaloidal granules.

ROZEL M. CURTISS.

Marengo, Ill.

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[We have in our office some alkaloidal granules made about twenty-two years ago. These granules, and the case containing them, have traveled thousands of miles, have visited Central America, crossed the Atlantic several times, and yet they are just as potent, so far as we can determine, as they were the day they were made. Could any preparation of the galenics stand a test alike this? What do *you* think?—ED.]

MERCURY FOR PITYRIASIS

In the following I send you a translation of an article by Dr. Reinald Fred Geyer of Rio de Fanciro, Brazil, appearing in the *Voĉo de Kuracistoj* about the cure of pityri asis versicolor by the use of quick-silver.

"It is well known that the skin parasite of pityriasis, the microsporon purpur, although easily removable from the skin by a simple fatty inunction or by rubbing with a brush, in spite of its sensitiveness to almost all antiseptics, strongly resists any kind of cure, because it penetrates deeply into the tubules of the sweat-glands and at once grows again, covering the skin with thousands of small round squamæ, even after the application of tincture of iodine and the strongest caustics.

"During twelve years, myself a sufferer, I had sufficient time to observe the ineffectiveness of a great number of topical applications. The parasite by and by took possession of my breast, dorsum, arms, and here and there started a colony upon the abdomen, the forearms, the throat, etc. When such a small colony had established itself visibly on any part, I scratched it off and penciled the place with concentrated phenol solution, which was a very effective but not generally useful remedy.

"Lastly, having lost all hope, I limited my efforts to patiently waiting to see whether the malady would disappear with age or with the patient himself, because this parasite has never been observed after a certain age.

"I had made the observation that the microsporon every time grew beautifully when my health failed, and that it dried up, became thinner, as it were, when I became better. I could not but think of a relation between this mycosis and tuberculosis. But, besides these oscillations and in spite of everything, the parasite left the place formerly occupied and stained, only to attack new territory of the sound skin.

"Three months ago I was compelled to use inunctions of mercury and, as an unlooked-for result, I found myself free from the microsporous squmæ. I do not know of any other cause of recovery, and desire very much that the readers of *Voĉo de Kuracistoj* would give information about it, for which I should be very thankful." BROTHER COSMAS.

Conception, Mo.

PREGNANCY AT SIXTY-SEVEN

The march number of your journal contains an item, under the caption of "Pregnancy in Old Age," relating cases of pregnancy occurring in women at the ages of—one at sixty-one years, one at fifty years, and one at sixty-five years. I can go one better. Our Susanna Harvey, the widow of a revolutionary soldier, died in Stonington, Connecticut, August 11, 1859, aged one hundred years and nine months. Her last child (she had several children) was born when she was sixty-seven years old. This is a matter of record.

GEO. D. STANTON.

Stonington, Conn.

THERAPEUTIC CONCENTRATIONS

There would be just as much reason in a western farmer deciding to feed his horses unhusked corn on the stalks instead of ground feed as for a physician to administer the total products of a plant in a

certain diseased condition when one concentrated and purified part of the plant was well known to produce the results desired. Of course, the horse can eat the unhusked corn and the crude material in the stalks that is not needed, but he will put on flesh and develop strength better if he is fed the separated grain.

But it is not always the crude parts that we wish to eliminate in giving concentrated and separated drugs. Frequently the crude extract of a plant contains antagonistic elements which vary in their relative proportion according to varying influences of growth, and there is no way to determine this fact except to separate the active principles and administer them separately.

It is no argument against alkaloidal medication or in favor of the use of conglomerate products to claim that the latter have been used with good results in the past, hence no progress toward betterment is called for. The tendency of science is toward exactness in knowledge, of art toward perfect workmanship.

Crudeness, dirt, ignorance, and uncertainty are represented by the conglomerate products of drug preparation which goes no farther than soaking the soluble substances out of the roots or bark of a plant. The age of the blunderbus gun has faded from the memory of man, and the age of crude galenics is fast drawing to a close. Instead of firing a miscellaneous mixture through a parabolic curve, trusting to luck that the bomb may fall on the enemy of health, we shall soon aim direct, with scientific precision, to vanquish the hosts of disease.

But why argue such a self-evident proposition? It requires but little discernment to get a clear view of the "nigger in the wood pile."

Selfish interest will often explain the seeming plausible utterances of those who manipulate the statements which they wish you to consider from their point of view.

In reading over the arguments of those who oppose alkaloidal medication, I have almost involuntarily placed them in two classes: the intelligent knaves, and the innocent ignoramuses. The former frequently almost succeed in covering up their tracks, the latter never try to do so. But revolution must always overcome inertia by persistent effort before we are even willing to progress from bad to better.

A. D. Hard.

Marshall, Minn.

EXPERIENCE WITH CALCIUM SULPHIDE

The recent reports on calcium sulphide have been of great interest to me, since for several years I have made quite frequent use of this valuable remedy. I think I can truthfully assert that I have found it of more general utility than any other drug with which I have become practically familiar. My experience with this agent is probably less extensive than that of many others who have written on the subject, but I have had some opportunity to observe its effects and have often found it extremely serviceable.

Speaking of its application in the fevers, I have often seen calcium sulphide exert a distinctly modifying influence on the severity of the symptoms in measles, materially enhancing the efficiency of other treatment. In typhoid fever, I have obtained equally good results; indeed, rather more favorable, for here the antiseptic action of the drug is particularly well manifested. In various cases of influenza it has also proved, in my hands, a valuable adjuvant to more powerful medicines.

I have been trying calx sulphurata lately in a tuberculous case of long standing, attended at times by great difficulty of respiration, and have been highly gratified to obtain considerable benefit with respect to this distressing symptom, giving a grain once in four hours.

As an all-around, systemic antiseptic, however, it appears to me that this preparation achieves its greatest triumph, for in this sphere it stands preeminently superior to anything and everything else in our materia medica. We may say that, as an almost universal rule, wherever a suppurative process exists it is indicated.

One other disease of which I will speak in this connection is eczema, in which affection calcium sulphide appears to pos-

sess almost the properties of a specific, especially in the pustular variety.

As to the matter of dosage, this can be regulated only by the effects sought and obtained, but it is not the least merit of this drug that it can be safely administered as freely and frequently as required.

This, in brief, covers some of the results of my observations concerning this remarkable preparation.

R. H. Clark.

Limerick, Me.

INFANTILE TETANUS CURED WITH AMORPHOUS HYOSCYAMINE

A female child, after being delivered by me, developed tetanic convulsions twenty-four hours after birth. I at once put her upon amorphous hyoscyamine, putting 3-250 of a grain into 24 teaspoonfuls of water and ordering a teaspoonful to be taken every hour until relieved. During the first day 8 doses were given, with little effect. On the second day 6 doses gave some relief from the tetanic movements, but the third day 6 doses did not seem to act as well as the day previous. So I inspected the navel and cauterized it with 95-percent carbolic acid, neutralizing with alcohol. After this I dusted the navel freely with boric acid, repeating the latter daily until separation of the stump occurred. In the meantime the hyoscyamine was continued in the same dosage, repeated just enough fully to dilate the pupils, when it was reduced to maintain that effect. The child received in all from 6 to 12 doses daily for thirteen days, when the convulsions completely disappeared. I now order it given every three hours for a few days, and today, which is thirty days after beginning treatment, it had no return of the tetanus.

The result obtained is not the first of such cures by me, for I have seen quite a number of them from the use of hyoscyamine. However, the drug must be pushed to full effect. As will be noticed, 3-250 grain in 24 teaspoonfuls of water for a 24-hour old infant is a stiff dose; but it gave results which a smaller dose would not have produced. Therefore, give dose enough to full effect, then less, as required. The bowels were opened with dram-doses of olive oil.

Wm. F. Radue.

Union Hill, N. J.

BREAST FEEDING

The following article, contributed to *The Bulletin* of the Chicago Department of Health last year, by Dr. Effa V. Davis, may be a little rudimentary, but none of us can know these things too well:

The feeding of a baby at its mother's breast is not so simple a matter that it can be done properly without some study and care by those in charge. More mothers could and would furnish breast milk to their babies with greater ease and comfort to themselves and to their babies if their medical attendants took more pains to teach them the facts about the physiology of lactation.

Some facts to be borne in mind are the following:

In Chicago, last summer, fifteen bottle-fed babies died to every one that was breast-fed. Mothers should be made to appreciate this fact when bottle-feeding is contemplated.

You can dry up a mother's milk by putting the baby to her breast only at long intervals, say morning and evening, or only at night. Such habits will spoil the best wet-nurse ever created.

You can check a mother's milk by constant or too many night feedings or by disturbing the woman's hours of sleep in any other way.

You can spoil the best breast milk in the world by feeding the woman too rich food, giving her alcoholic tonics or checking normal exercise.

You can "upset" the baby by putting it to the breast too frequently, loading a half-empty stomach with a fresh meal. Vomiting, colic, green stools and diarrhea are some of the results.

You can get the best results by first knowing what the wet-nurse yields to her baby, by a system of weighing the child before and after nursing. Every baby-doctor should keep suitable scales to rent or lend for this purpose until he is satisfied on the matter.

The interval between nursings can best be regulated when you know how much milk the baby gets in twenty-four hours. An ordinary baby will thrive best on not more than seven meals in twenty-four hours during the first three months of life, and often will do as well or better on six feedings. An effort should be made early to cut down night feedings, as it favors the welfare both of mother and child.

When the yield of breast milk is scanty and the child not gaining, give an ounce or two of artificial food just after its nursing, rather than omit a breast feeding altogether, if the child is under six months or even older and if the time be midsummer, as such a method keeps the breasts up to their best-yielding capacity. The old way of substituting a bottle for one or two feedings only checks the yield of milk all the more.

Mixed feeding, when properly conducted, may be begun with benefit to the nursling in its eighth or ninth month, but the physician *must* instruct the mother *what*, *when* and *how much* she shall give. The following will do no harm, but will greatly help, nourish breast-fed babies, when eight or nine months old, if properly prepared given at the proper time and in proper quantities:

"Pap" (stale bread) soaked in boiling water and cooked with cow's milk for a few minutes.

Vegetable soup, strained, with a little toasted bread.

Farina, or any other similar cereal, boiled and served with clean cow's milk.

Teach mothers the value of a drink of pure water to the nursling. Thirst is often mistaken for hunger, especially in summer.

DISCRIMINATING AGAINST THE DOCTOR

A diligent study of Western Classification No. 50, which gives the classification under which goods sent by freight are to be charged, seems to show that the physician is being discriminated against in the matter of freight-rates on surgical and electrical apparatus such as he may use in his profession, and that by reason of such unjust discrimination the medical profession of this country has been mulcted out of hundreds of thousands of dollars.

Taking for instance an induction-coil, which may be used for a great many purposes, such as wireless telegraphy, automobile or gas-engine sparking, gas lighting or x-ray work, and referring to page 160, item 59, we find induction-coils (for physicians' use) subject to a double first-class rate, meaning and intending to mean that an induction-coil shipped to a physician is subject to this rate, but if shipped to a telegraph company and proof is produced that such coil is not intended for a physician, the first-class rate only, as per item 10, page 64, is applied, or if intended to be used as a spark-coil, a first-class rate as per item 9, page 61, will be charged.

Taking dry batteries for instance, item 14, page 61, these are shipped at a third-class rate, and electric bells, item 28, page 61, are first class, but a small faradic battery, item 18, page 61, such as are used by physicians and consist of one or more dry batteries, which take a third-class rate, and a small coil, such as is contained in any electric bell, is charged double first class. Dry batteries, as already stated, get a cheap third-class rate, but when these batteries are placed in a case and shipped to a physician as a galvanic battery, item 19, page 61, the rate jumps to double first-class. Telephone apparatus, item 34, page 61, which has from six to ten times the value of such batteries and compares favorably as regards bulk, gets a third-class rate. Arc-lights, with all their sensitive parts, get a first-class rate.

Electric meters, item 28, page 63, take a first-class rate, telegraph and telephone switchboards, power switchboards, all get a first-class or better rate, but the doctor who buys a wall-cabinet, item 42, page 64, which is nothing more than a switchboard with meters, pays double first class, or twice as much.

Cutlery, item 1, page 58, gets a second-class rate, but surgical instruments, which do not differ in weight or price appreciably from cutlery, are assessed double first class.

What does this mean when we speak of third class, second class, first class, or double first class?

Taking Crawford, Nebr., for instance, the rates in their order mentioned are $1.37, $1.72, $2.00, and $4.00, and for Pacific State points, the latter is from $6.00 to $7.00 per hundredweight.

That such excessive charges cannot offer any inducements to the doctor to equip himself is very plain, and it is especially a hardship on the beginner. The question, why such discrimination has passed unnoticed to date, is easy to answer. The doctor is but an individual and as such has no chance against the powerful railroads. If he were part of a powerful corporation like the telegraph or telephone companies, these railroads would soon be induced to lower their rates.

Every doctor who is interested in getting his instruments and apparatus at a lower freight rate should cut this out and send it to his Congressman and Senator with a request for immediate attention. The doctor by means of his profession and standing is quite a power in his community to be reckoned with, and, the cause being just, these unjust rates should be reduced.

FROM AN ANONYMOUS CONTRIBUTOR

I have known Dr. Wm. J. Robinson for many years. How long have you known him? I think you had better go a little slow on Dr. R. We know him in N. Y. quite well.

A Dam Phool.

[This anonymous letter is printed exactly as received. The signature being appropriate, further comment seems entirely unnecessary.—Ed.]

ARE YOU FIGHTING QUACKERY?

It is time that the medical profession became more thoroughly alive to the danger of quackery in its many forms, and took some active part in combating it.

Every reader of Clinical Medicine is familiar with the magnificent articles upon "Scientific Medicine vs. Quackery" contributed by Dr. William J. Robinson of New York. I am sure that everyone will be glad to know that these articles have been reproduced in the form of a neat, paper-bound booklet, just the thing for free distribution among the laity in your own community. This little booklet tells the truth about quack doctors and their methods, about Christian science, osteopathy, chiropractic, the "medical institute," patent medicines, and all other kinds of falsehoods and impostures. You can do no more effective work to combat these evils than by giving this wide circulation.

These booklets are offered for sale at the price of $2.00 a hundred. Every dollar you spend in circulating this literature will come back to you many times over. It will pay you to order liberally. Let us hear from you at once.

CICUTINE, VERATRINE, ATROPINE, AND CALCIUM SULPHIDE IN PRACTICE

I have on hand an old lady of about 79, suffering from senile dementia. Intelligence is manifested only for short periods and then but slightly. She has delusions and is at times almost unmanageable. I have found cicutine hydrobromide, two granules given from one to three hours apart, to work fairly satisfactorily, without the depressing effects usually resulting from the administration of bromides. There is no gastric irritation and the appetite, too, remains good.

Two years ago, treating a patient, I found the pains of intestinal cancer to be mitigated to a considerable degree by cicutine hydrobromide in doses of two granules every two to three hours.

Cicutine hydrobromide works well in hysteria, after the hypodermic use of apomorphine hydrochloride.

In children who are fidgety or show twitchings of the extremities, cicutine proves very effective.

I advise every member of the "family" to carry this remedy in his medicine-case, for he will find frequent use for it.

Right here, however, allow me to repeat the old, old story, that should be kept in mind by every physician: Proper absorption of nourishment and of remedies cannot be expected unless the gastrointestinal canal

is thoroughly cleared out, cleaned up, and kept clean.

The free use of veratrine in the pulmonary congestions will give excellent results. Get your results on the pulse by the use of small doses of the drug frequently repeated, then maintain the condition by lengthening the intervals. But under no circumstance forget to attend to the gastrointestinal canal! I believe veratrine to be our best general eliminant, if it "has a show"—that is, under proper conditions.

Whenever you have a case of collapse, do not forget atropine.

Recently I had to treat a case of gonorrhea of long standing, with stricture. The latter I treated by gradual dilation. Then I gave the appropriate remedies, but these failed to stop the discharge until I saturated the patient with calcium sulphide, keeping this up for ten days, when all discharge ceased. I am passing a sound every two weeks for an indefinite time.

HORACE R. POWELL.

Poughkeepsie, N. Y.

NEW ORDER OF TRANSMITTING SECOND-CLASS MATTER

Beginning with July 1, the new order of transmitting monthly and semimonthly second-class mail matter is in effect, and subscribers are herewith forewarned that some of them may possibly receive their numbers of CLINICAL MEDICINE a little later than heretofore. Most of our readers, no doubt, already are familiar with the laudable experiment of the authorities to help place the Postal Department on a paying basis, by delivering heavy-weight periodicals to central distributing points by fast mail, and from thence to distribute by regular mail. This naturally will cause a slight, though unimportant, delay, while it is expected to result in great financial saving to the Government.

SMILE AND HUSTLE

Smile, and the world smiles with you,
"Knock," and you go it alone;
For the cheerful grin
Will let you in
Where the "kicker" is never known.

Growl, and the way looks dreary;
Laugh, and the path is bright;
For a welcome smile
Brings sunshine, while
A frown shuts out the light.

Sigh, and you "rake in" nothing,
Work, and the prize is won;
For the nervy man
With backbone can
By nothing be outdone.

Hustle, and fortune awaits you,
Shirk! and defeat is sure;
For there's no chance
Of deliverance
For the chap who can't endure.

Sing, and the world's harmonious,
Grumble, and things go wrong,
And all the time
You are out of rhyme
With the busy, hustling throng.

Kick, and there's trouble brewing,
Whistle, and life is gay.
And the world's in tune
Like a day in June,
And the clouds all melt away.

NEWS NOTES

The meeting of the State Medical Society of Wisconsin was held in Waukesha June 6–8, with about four hundred physicians in attendance.

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According to Health Commissioner Young of Chicago, a great many dogs in this city show traces of rabies. An epidemic of the disease is feared.

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Prof. Henry Kraemer has been elected a member of the Council of Pharmacy and Chemistry of the A. M. A., in place of the late Prof. C. S. N. Hallberg of Chicago.

—

The patent-medicine makers recently won a victory in the Supreme Court of the United States when it was decided that it is not a violation of the "Pure Food and Drugs Act" to label a thing as a cure when in fact it has no curative qualities at all.

—

An association of the Medical Reserve Corps of the U. S. Army, Illinois Division, was recently organized in Chicago. Dr. Frank Billings was elected president of this organization. President Taft has appointed about one hundred Illinois physi-

cians members of this "Reserve Corps," giving each physician the title of "First Lieutenant."

—

The North Carolina National Guard has ordered from the War Department at Washington typhoid vaccination material for one thousand men, with a view of vaccinating all the men of the North Carolina Guard as a means of preventing the occurrence of this disease, following the annual encampment.

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A correspondent calls our attention to the fact that the little poem "Chirurgical Myth" sent us by Dr. Layton, and published in the May number of CLINICAL MEDICINE, page 553, is very similar to the poem, "Strictly Germ-Proof," written by Arthur Guiterman some eight years ago. These coincidences do happen.

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The old-time doctor who used powdered toad was not so far off, after all. Prof. Abel, and his associate, Dr. Macht, of Johns Hopkins University, have just succeeded in securing the "active-principle" from a species of tropical toad known to the world of science as bufo agua. This substance is called "bufagin," and is said to be a valuable heart tonic, having an action somewhat like that of digitalis.

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The latest in social circles is the "whooping-cough party." It has become quite a fad for mothers whose children are suffering from pertussis to invite in other similar sufferers for mutual entertainment. At a party recently given at Brockton, Mass., at which eight "whoopers" were present, a cake was presented as a prize to the child who coughed the loudest and the longest. That was fine, wasn't it?

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By all means, read the advertisement of the Coca-Cola Company, appearing in this number of CLINICAL MEDICINE. It may not be known to our readers that this company has recently won a great case in the federal courts. It was charged that coca-cola was a habit-forming beverage. This charge has now been refuted and shown to be untrue by the highest courts in the land. Coca-cola contains less caffeine than either tea or coffee, and no cocaine at all. Read the details.

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"Each time a hospital or dispensary treats a patient able to pay," a writer says in *The Bulletin of the American Academy of Medicine* for April, 1911, "it is robbing some man of a fee, small though it may be, but in the aggregate which would go to make up his yearly income, and hand his name on to other patients. The hospital becomes, thus, the young man's greatest competitor, a real obstacle to successfully beginning his career, and by reason of it a strong temptation to resort to things unprofessional, questionable, and sometimes even criminal."

—

The "German Society for Combating the Diseases of the Sexual Organs" is to be given space at the forthcoming International Hygiene Exhibition, to be held at Dresden this summer, to present information to the general public concerning the ravages of the venereal diseases and the best means of preventing and combating them. There are to be exhibited good illustrations, photographs and models showing the various forms and stages of these diseases; and the whole system of prostitution, and how it works, will be brought forcibly to the attention of the people.

—

"The next legislature ought to pass a law placing drugs and medicines under the state food act," said A. Hanby Jones, Illinois Food Commissioner, recently. "There are hundreds of drugstores in Illinois in which the drugs have been on the shelves from twenty-five to thirty years. Such drugs are unfit for use. There is absolutely no inspection of drugs. The board of pharmacy examines the druggist, but not his drugs. The danger to the health of the people from this one source is untold. Then there are patent-medicine factories turning out nostrums which cannot be reached unless they go out of the state and are seized by the federal government."

According to the newspapers, Dr. Howard A. Kelly, Professor of Gynecology in the Johns Hopkins University Medical School, has just purchased $15,000 worth of radium, by far the largest amount of this valuable substance ever imported into America. Dr. Kelly is experimenting with radium in the treatment of cancer.

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Although the number of medical schools in the United States remains about stationary, the number of physicians being licensed by state examination boards is diminishing. In 1910, 7004 were examined and 18.4 percent failed; in 1909, 7287 were examined, with 19.6 percent failures; in 1908, 7770, with 21.7 percent failures, and in 1907, 7279, with 21.3 percent failures.

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Wisconsin now prohibits the use of public drinking cups in railway trains, railroad stations and other public places, and a similar warfare is being carried on against this nuisance in other portions of the country. Good! But, while the drinking cup has caused some hundreds of deaths, the saloon has caused its hundreds of thousands. Would it not be a good scheme for the medical profession to become interested in a campaign against this greater public danger?

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Prepare to attend the annual meeting of the Tri-State Medical Society of Illinois, Iowa and Missouri, which will be held this year at Ft. Madison, Iowa, on September 26 and 27. The president of this Society is Dr. Walter Urban Kennedy of St. Louis, Mo.; secretary, Dr. Alfred S. Burdick, of the staff of THE AMERICAN JOURNAL OF CLINICAL MEDICINE. The address in medicine will be delivered by Dr. Thos. G. Atkinson of St. Louis, editor of *Medical Brief*, and the address in surgery by Dr. Geo. W. Crile, Professor of Surgery in the Western Reserve University, Cleveland, O. The Tri-State has been greatly enlarged in membership during the last year or two under the able direction of Dr. Emory Lanphear of St. Louis, who is treasurer of the organization. The program for the next session promises to be an exceedingly interesting one. Send $2 to Dr. Lanphear for membership.

We are pained to announce the death of Dr. James Evelyn Pilcher, who passed away in Savannah, Georgia, April 9, aged 54 years. Dr. Pilcher was well known to every member of the Association of Military Surgeons of the United States, of which he was for many years the secretary as well as editor of its journal. He had a long and interesting army experience. He was commissioned assistant surgeon in 1883, served through the Spanish War, and retired from active service in 1899. Major Pilcher was a delightful man; always gentlemanly, yet always energetic, scholarly and scientific. Those of us who have come into contact with him from year to year in the meetings of the American Medical Editors' Association, of which he was one of the working members, will not soon forget him. For the last few years he has been totally incapacitated because of failing eyesight. Everyone who knew him, as we knew him, will join with us in paying tribute to his memory.

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A drug salesman sends the following story: "A few days ago, in one of the small cities in my territory, I was invited by one of the doctors to attend a meeting of the county medical society. As the county has about 120 doctors, and as there were about forty in the city, I thought there would be from 60 to 75 doctors present at this meeting; so, to do the nice thing, I got a box of 50 good cigars and went to the meeting with the doctor who had invited me. I have been smoking those cigars ever since! There were thirteen doctors present, and four of these, one a lady, were not smokers. This society seems to be troubled with asthenia. A ludicrous feature was that the meeting was held in the office of the cemetery association, which under the circumstances (it being a dying association) was most appropriate."

We suggested to our friend that the best thing that could happen to that society was to get into a good lively scrap. Though we believe in harmony, there are times when too much harmony is a dangerous thing. In this case, possibly a good fight might cause the "smokers" to turn out.

State-Board Examination Department

Edited by R. G. SCHROTH, M. D., 546 Garfield Ave., Chicago, Ill.

Many students and physicians have peculiar ideas concerning state examining boards. These ideas vary mainly according to the character of the individual, but change in intensity with the weather, as well as according to the depression or stimulation of their surroundings.

Naturally, when things go wrong, the secretary of the board is the one to bear the brunt of the criticism, since his name appears on all the literature sent out, and since he is the one who gives out information concerning the examinations, answering hundreds of questions from all kinds of people on all kinds of subjects.

Many imagine that the secretary grades the papers, and if they fall below the passing mark they think it is the secretary's fault, that he is prejudiced against them, unfair or "crooked." Common sense should show them that this idea is all wrong, for in an examination in which there are 400 candidates, with ten questions in each of ten different subjects, there would be 40,000 written answers for the one man to go through and grade.

Even to read these 40,000 answers would take days of time, but if you stop to think that many candidates write from one-sixth of a page to two or three pages in answer to each question, and that many write and spell poorly, you will readily see that this examination would cover more work than is contained in all of Gray's "Anatomy". If the unhappy secretary were compelled to do this alone—several times a year, as in some states—when would he get any time to attend to the rest of his official duties?

In most states the candidates' papers are distributed among the members of the board, each member having charge of one or more department or subject. He does not even know whose papers he is marking, since these papers do not have the names of the individuals written on them, but are designated by number, the identity of the candidate being concealed in the most ingenious ways possible.

As a matter of fact, the markers do not care to know the names of the owners of the papers, for if they did, no matter how conscientious they might be, they might be tempted to raise the markings of a friend or lower the grading of one they thought below the standard.

There is no doubt that members of the examining boards are constantly annoyed by letters from enemies as well as friends of prospective candidates. It certainly would not be fair or just for the marker to be influenced by the anonymous or other communications assailing any candidate; and if there were any likelihood of these influencing the board, they would be overwhelmed with them.

On the other hand, many men actually fail because they think they have some kind of a "stand in" with the board. Some politician promises to write a letter to the secretary for a friend, while another depends upon the pull he has with some political power, varying from a precinct captain to a senator or governor, the president or secretary of some medical society, or the schoolmate of some member of the board.

There is no doubt that every state-examining-board member gets stacks of letters of this kind. If you were to receive them, each asking some favor which you could not legitimately grant, what would you do? You would pay no attention to them, especially when you considered that they were without reason and impossible of granting.

Believe me, then, no board is going to mark you up or down. If you are within

the limit, you win; if outside, you lose. It is your knowledge of the subjects examined, and your ability to express your knowledge clearly and succinctly, in an understandable way, which is going to count. The object of this department is to enlarge your knowledge and help you to use it to the very best advantage possible in these tests.

MATERIA MEDICA AND THERAPEUTICS

1. Write a prescription for acute bronchitis in a child two years old.

Codeini sulphatis .....grs. ii
Elixir. aurantii .....drs. iij
Sol. potassii citratis, q. s. ad.....ozs. iij
Sig.: One-half to one teaspoonful every three hours.

A better prescription is calcidin, 1-3 grain every hour, in hot water, associated with minute doses of aconitine, frequently repeated, for fever, and emetine, to loosen.

2. Write a prescription containing two cerebral depressants and give the conditions in which each is indicated.

Chloral. hydratis .....dr. i
Potassii bromidi .....drs. ii
Syr. pruni virginianæ .....fl. oz. i
Aquæ, q. s. ad .....fl. ozs. iii
Sig.: Dessertspoonful at night.

A better prescription is hyoscine, as combined with morphine and cactin. This is indicated in severe spasm or mental excitement, tetanus, and strychnine poisoning.

3. Describe in detail the physiological effects of nux vomica. Name the structure on which strychnine acts principally.

Nux vomica is a vasomotor stimulant, acting on the vasomotor center. It stimulates the motor tract of the spinal cord, the receptive activity of the sensory centers, reflex activity, and in poisonous doses, produces tetanic convulsions. The frequency and force of the pulse are increased by stimulation of the heart-muscle and its ganglia. The respiratory rate and vital capacity, by stimulation of the respiratory center. It depends for its activity upon its alkaloids, strychnine and brucine, which should be given as indicated.

Strychnine is an active vasomotor stimulant, acting powerfully on the heart and respiratory centers.

4. Name all the cardiac stimulants known to you. Discuss one, giving its physiologic and therapeutic actions and dosage.

Digitalis, ammonia, ether, alcohol, caffeine, strychnine, strophanthus, ignatia, sparteine, convallaria, amyl nitrite. Amyl nitrite is used to relax spasm in epilepsy, convulsions, tetanus, puerperal eclampsia, dysmenorrhea, asthma, pertussis, migraine, strychnine poisoning, angina pectoris. Dose, 3 to 5 minims, by inhalation.

Physiologic action: It is a strong nerve depressant and sedative. It depresses the motor cells in the Rolandic area of the cerebral cortex, as well as the large multipolar cells n the anterior horn of the spinal cord. However, in medicinal doses, it cannot be used to stop pain.

It depresses the pulse through the central inhibitory cardiac apparatus (the vagus) and also relaxes the arterioles by depression of the vasomotor centers in the floor of the fourth ventricle. In small amounts, it stimulates the heart, but its dominant action is depression.

It causes the oxyhemoglobin to change to methemoglobin. It reduces temperature by causing methemoglobin to form in the red cells and therefore suboxidation of the tissues and depression of the vasomotor centers, increasing heat radiation in the skin besides the depression of the heart.

5. Discuss serum therapy, giving examples. Name any official serum known to you.

Serum therapy consists in the prevention and cure of certain acute infectious diseases, by administering subcutaneously or applying locally to mucous membranes a blood serum containing antitoxin or antimicrobic substances antagonistic to the toxins or to the specific microorganisms themselves; also by administering, in the same manner, but contained in some other medium than blood serum, attenuated cultures or the toxins from such cultures. Diphtheria antitoxin. Antistreptococcic serum. Antitetanic serum.

6. Under what conditions and how would you use the following as therapeutic measures: oxygen, male fern, thyroid extract, heat, cold?

Oxygen, for asphyxia, by inhalation. Male fern, for tapeworm, as oleoresin aspidii, 1 dram, after fasting. Thyroid extract, in disease of thyroid gland with deficient secretion; extract of the gland, 5 grains. Heat, as a diaphoretic, for dropsy, or locally to relieve congestion; cold, in form of tub bath or sponge bath, to reduce fever, and as a stimulant.

7. Write half a page on the value of climate in the treatment of disease.

The proper climate for diseases varies according to the disease, as well as the various stages of the disease. A person naturally fares better in the climate of which he is a native, but may do better in another climate during disease. Most diseases are better treated in a climate having a large number of bright, sunny days, one that does not have sudden changes, and one that is not damp. Patients with bronchitis do better in a moist, but warm climate. Of tuberculous patients, some require a dry climate, while others seem to improve in moist climates; this is no doubt due more to the altitude and atmospheric pressure than to moist or dry conditions. As a rule, however, a cold, dry, sunny climate is the best for all cases concerned. A dry climate is unsuitable in emphysema, bronchiectasis, bronchitis, many forms of heart disease, acute febrile attacks, certain cases of insomnia, and nervous diseases, acute pneumonia, very old and very young, who are used to low altitude. The conditions favored by high, dry climate are night sweats, malaria, rheumatism, gout, certain stomach diseases, most chronic diseases and certain nervous diseases

As previously stated, the conditions, as well as the presenting symptoms, are to be taken into consideration by the physician.

8. Name three diaphoretics and give therapeutic indications, and explain exactly how they lower temperature.

Hot water reduces the temperature by dilating the peripheral capillaries, thus bringing the blood from the deeper parts to the surface and removing inflammatory exudation. It takes the blood from the congested areas of the vital organs by stimulating the sweat-centers and thereby reduces arterial tension, dilating the vessels through the vasomotor system.

Opium acts as a diaphoretic by checking all secretions except those of the skin, which naturally takes up the work made necessary by the deficient action of the kidney. Opium raises arterial pressure and thereby forces the blood to the surface from the deep parts. It also stimulates the sweat-center in the floor of the fourth ventricle, and some authors claim that it stimulates the cells in the sweat-glands. It is of particular value when the patient is kept warm.

Pilocarpine produces sweating by stimulating the secretory nerve-fibers supplying the sweat-glands, and its action is not due to vasomotor palsy; however, the vessels are dilated.

9. Give the treatment of chronic cystitis, and names and doses of drugs employed and method of using them.

Irrigate bladder daily, under aseptic and antiseptic precautions, with 1 : 10,000 solution of bichloride of mercury, for infection. In acute cystitis, aconitine in 1-134-grain doses every half hour until fever is reduced.

Arbutin, in 1-3 grain doses, and asparagin, 1-67 grain, act on the mucous membrane; such a dose to be given every two to four hours.

10. Name three antipyretics. Give dose, therapeutic indications, and physiological action of one of them.

Acetanilid, quinine, guaiacol.

Acetanilid. Dose: 5 to 10 grains. Therapeutic indications: All sthenic conditions, such as fevers. Physiological action: It depresses the central nervous apparatus by depressing the centers. It reduces the temperature, causing degeneration of the red cells, and dilating the vessels at the periphery. It has little action on the respiratory and circulatory apparatus, except in large doses. It depresses the motor apparatus by depression of the motor cells in the anterior horns of the cord. It prevents sensory impulses from passing to the brain by depression of the posterior columns of the spinal cord.

PHYSICAL DIAGNOSIS

1. How would you distinguish ascites from the other abdominal enlargements?

In ascites, in the dorsal position, the umbilical region appears flat, while the lateral portions bulge. Fluctuation is present. Tympany shows bulging over the umbilical region and flatness in the flanks. The results of percussion change with the position of the patient. There is absence of any tumor.

In ovarian dropsy, the accumulation is local and confined to the ovarian region, and does not change with the position of the patient. Fluctuation is absent. Vaginal examination may reveal the presence of a tumor.

The etiology of ascites differs from that of other abdominal enlargements.

In pregnancy, there is a history of suppression of menses; ballottement; fetal heart beat.

2. Classify the adventitious cardiac sounds, and name the diseases that are factors in their causation.

Mitral regurgitant, mitral stenotic, tricuspid regurgitant, tricuspid stenotic, aortic regurgitant, aortic stenotic, hemic (in anemia and chlorosis, due to blood changes and lessened blood pressure). Causes: Rheumatism, overexertion, chorea, syphilis, alcoholism, sudden and severe muscular strain.

3. Name the physical findings in an aneurism of the transverse portion of the arch of the aorta.

If large, protrusion may be seen in intercostal spaces. In congenital and long-continued cases the cartilage or ribs may be absorbed, and a pulsating tumor may be seen or felt. The stethoscope or phonendoscope may divulge a venous hum. There may be an apparent drop in the pulse beat on one side or the beats may be asymmetrical on right and left side. On palpation, a dull sound is heard on percussion. The absence of temperature and urinary findings is important and may be included under physical signs as well as the skiagraphic picture.

4. Give the physical findings in atrophic cirrhosis of the liver.

The symptoms of portal obstruction and gastrointestinal catarrh, such as coated tongue, fulness and distress after eating, loss of appetite, flatulence, constipation, and highly colored urine. Later, enlargement of the abdominal veins, hemorrhoids, ascites, swelling of the feet, hemorrhages from various mucous membranes, enlargement of the spleen. The liver, on palpation, is found to be enlarged, but later it is contracted and the hepatic dulness accordingly diminished.

The abdomen is distended with fluid, causing a high-pitched sound on top, and a flat sound over pendulous portions. Liver dulness is decreased and tympany of liver region greatly increased. Palpation finds liver high up under costal arch, and small and hard. The stool may be light in color. The temperature is negative. Mucous hemorrhages are common.

5. (a) Give the physical signs of consolidation of the lungs in acute tuberculosis. (b) Give the physical signs of cavity formation.

(a) In consolidation, the lung is solid, and a dull sound is heard on percussion. If there is an extensive exudation, there is bulging of the intercostal spaces and these pit to a certain extent on pressure. On listening over the affected area, there is absence of the normal lung sounds. Evening rise of temperature and night sweats. Second pulmonary sounds accentuated and disturbance of the pulse.

(b) On inspection, flattening of chest over cavity. Palpation, fremitus increased. On percussion, if the cavity is empty, the note is tympanitic or amphoric, depending on the size of the cavity and its relation to the chest-wall. When the cavity communicates directly with a bronchus, the socalled "cracked-pot sound" is heard and the percussion note changes when the patient alternately opens and closes his mouth. When the cavity is filled with exudate the sound is dull. On auscultation over an empty cavity, increased vocal resonance is noted, and pectoriloquy, tubular, cavernous or amphoric breathing. If the cavity contains fluid, bubbling râles are heard.

OPHTHALMOLOGY AND OTOLOGY

1. Name cause, symptoms and treatment of acute iritis.

(1) Syphilis, rheumatism, gonorrhea, smallpox, septicemia, typhoid fever, pneumonia, diabetes.

(2) Pain in the eye and forehead, lacrimation, photophobia, dimness of vision, unequal pupils, cloudiness of the aqueous humor, punctuate deposits on the posterior surface of the cornea, change of color of the iris.

(3) In syphilitic iritis, mixed treatment; in rheumatic, large doses of salicylate of sodium; in the other varieties, treat the constitutional condition. Locally, dilate the pupil with atropine and keep it dilated until all of the symptoms have disappeared; keep the patient, in a dark room if possible, on a light diet. Treat the offending cause.

2. Define entropion, myopia, blepharospasm, photophobia-ptosis, chalazion.

Entropion: The inversion of the edge of the eyelid.

Myopia: Nearsightedness; short sight, eyeball too long.

Blepharospasm: Spasm of the orbicular muscle of the eye.

Photophobia: Intolerance of the eye to light; fear of light.

Ptosis: Drooping of the eyelid.

Chalazion: A tumor of the eyelid, formed by the distention of a meibomian gland.

3. Give the relations of the middle ear.

Outer wall is formed by the membranum tympani; inner wall is the outer wall of the labyrinth; posterior wall separates it from the mastoid cells; anterior wall separates it from the carotid canal; into the middle ear opens the eustachian tube anteriorly, and the mastoid cells posteriorly.

PEDIATRICS

1. Name the symptoms and give the treatment of pertussis.

Whooping-cough shows very slight fever, begins with coryza accompanied with an acrid discharge, conjunctivitis, laryngitis and bronchitis. The cough becomes paroxysmally explosive, a series of expiratory efforts being followed by a peculiar, ringing, inspiratory whoop. During these attacks the child appears as if about to suffocate, and some times it vomits.

The violence of the cough may cause ulceration of the under surface of the tongue or there may be hemoptysis or epistaxis. Emphysema, interstitial or vesicular, may be induced. The paroxysms recur with variable frequency. May be complicated by catarrhal pneumonia, and bronchitis may persist.

The treatment consists in proper hygiene and diet, and the following prescription has been found to be of value:

Antipyrin	grs. xvj
Sodii bromidi	grs. xlviij
Tinc. belladonnæ foliæ	m. xvj
Aquæ destillatæ, q. s. ad	ozs. ij

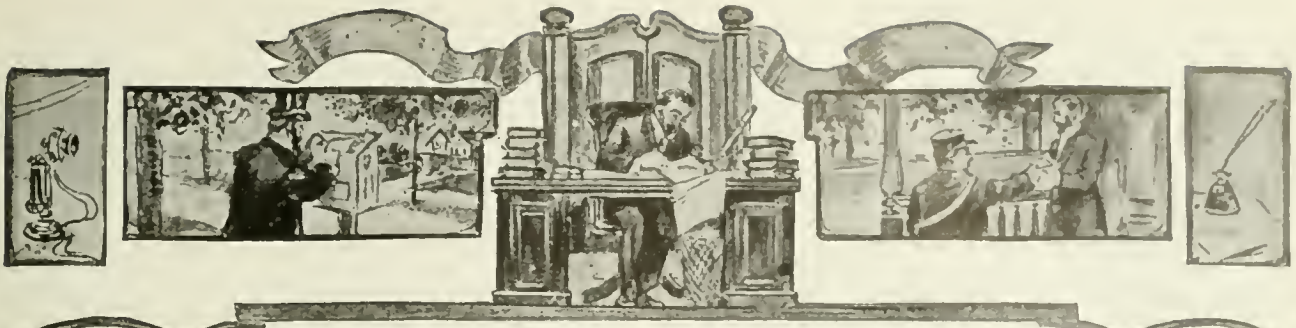
Sig.: One dram in water every two hours.

A better remedy used today is calcium sulphide, to saturation. Atropine, to mild physiologic effect.

2. Give the degree of heat and time employed in scientific pasteurization of milk. Describe commercial pasteurization.

Milk is heated to 140° F., and this temperature maintained for twenty minutes. This will destroy tubercle bacilli and all pathogenic germs. Some authors claim that the degree of heat must be a little higher than 140° F., and some have found or claim to have found, tubercle bacilli in milk heated to 175° F. Flask pasteurization is heating the milk to 170° or 175° F. for a part of a minute, and then cooled immediately to 45 or 50° F. Commercial pasteurization consists in subjecting milk to a temperature slightly below the boiling point for a minute or less, and cooling.

In pasteurization, the lactic-acid bacilli are killed, while certain harmless bacteria, many bacteria of putrefaction and spore-forming bacilli survive. For this reason, pasteurized milk seldom sours, but gradually putrefies.



CLINICAL · MEDICINE
POST·GRADUATE·SCHOOL of THERAPEUTICS

George F. Butler, A. M., M. D., Director
Thomas J. Mays, M. D.
C. S. Nelswanger, M. D.
C. E. de M. Sajous, M. D.
Alfred S. Burdick, A. B., M. D.
William F. Waugh, A. M., M. D.

PART III.—LESSON TWENTY-TWO

NEURASTHENIA—THE TREATMENT AND GENERAL MANAGEMENT

It should be remembered that neurasthenia is essentially a chronic malady, that its development often is rapid, as its advent is insidious, and that the final recognition of its presence may occur only after weeks or months of its existence, after the entire nervous system has become involved. The individual may have been enjoying normal health for some time. Suddenly he manifests a strange, unwonted disposition—is peevish, a prey to unreasoning fears, loses sleep and appetite, is listless and distracted, perhaps even indifferent in his family relations, and evidently a victim of secret care. Gradually he realizes the fact that he is not himself, that his nerves are seriously unstrung, and that he requires a change—he is neurasthenic, and powerless to cope with the conditions to which he is subject. There is no occasion for despair, however; the most obstinate case may yield to rational means of restoring mental and bodily health.

Rest, Physical and Mental.—It cannot be too strongly impressed upon the sufferer that great benefit can be derived from rest. This regimen may be regulated according to the severity of the case, being relative or absolute in proportion to the requirements indicated. In milder cases, a few hours of extra sleep daily may prove an efficient means of relief.

Only the most careful study of each individual case can rightly determine the precise procedure to be adopted. The difficulty in determining whether the neurasthenic condition or the gastrointestinal disease was the primary condition of any given patient, is often very great and frequently insurmountable, but from a practical point of view, the answer does not appear to be important.

If the gastrointestinal disease is purely neurasthenic in its inception, it soon becomes much more than this in a large number of cases, and requires much the same line of treatment, whether it is primary or secondary. In all cases, rest must be considered the essential and rational basis of the line of treatment chosen, everything else being subservient to its beneficent influence.

Bearing in mind always that the particular neurosis under consideration is largely, often chiefly, psychological, it is impossible to overestimate the reflex importance of rest in its salutary action upon the mind. Perfect relief from bodily fatigue works wonders in effecting general amelioration, although in many cases gentle and well-regulated exercise is of unquestionable value, especially in certain states and in certain stages of recovery. Released from the wearing anxieties which have finally

resulted in a neurasthenic condition, the mental facilities of the victim gradually but surely regain their normal strength and elasticity, particularly if the environment is such as to inspire reawakening hope and confidence.

A new life appears to accompany the results of carefully studied and judicious treatment, and in compulsory, yet grateful, repose the patient soon finds that his thoughts are brighter and more cheerful, his capacity for mental enjoyment keener, and his physique markedly improved under the influence of the general recuperation. Sleep and healthy digestion, which have perhaps long been strangers to him, assume a natural phase; troubles which but lately oppressed the mind with persistent anxiety appear purely imaginary, or at least are deprived of their baneful effect, while the entire system responds favorably to the new regimen and watchful care.

The records of this treatment abound in illustrations of its beneficent agency in the recovery of normal conditions. It is emphasized strongly here as of unique, paramount importance, in which experience leads us to place almost implicit faith.

Hydrotherapy, in the opinion of the most competent authorities, is an invaluable ally in dealing with neurasthenia. It has even been asserted that there is probably no chronic disease in which its application contributes more largely to the betterment of the patient's condition, and which renders the beneficial effects of a changed environment, the removal of etiologic factors, of proper diet, electricity and medication more pronounced and enduring.

Nearly half a century ago it was declared: "Prolonged continuance of anomalies of the nervous system not rarely deranges important functions. Since all functions depend upon nerve action, and no other remedy is capable of altering the nervous system in a mild manner so rapidly, surely, easily and thoroughly as water, this simple remedy must occupy the first rank as a nerve tonic." (Preiss.)

Other eminent writers have similarly endorsed the value of hydrotherapy and balneotherapy in neurasthenia; Jolly recommending the imbibition of large quantities of water as an aid to renal and peristaltic action, its external application being valuable in those cases in which increased excitability is combined with tendency to exhaustion.

One can hardly overestimate the efficacy of cold rubs, half and full baths with friction, of douches, sprays, etc., in their favorable influence upon the cutaneous tissues and upon the circulation and tone of the vessels. Krafft-Ebing asserts that "in the management of neurasthenia the water treatment is of the greatest value, because, as applied preferably in institutions, it admits of all possible excitant, calming and alterative effects upon the diseased organism and its tissue change." He considers hydrotherapy important in reducing insomnia, and in pronounced neurasthenia regards it as a valuable aid in regulating cardiac activity, dilating the peripheral vessels and increasing or diminishing (as desirable) the cerebral circulation.

Various hydriatric measures may be adopted, all of them more or less efficacious, according to the conditions in which they are applied. Klemperer is authority for the assertion, amply corroborated by experience, that "in hydrotherapeutic efforts we observe quite an extraordinary and incomparable stimulation of the nervous system, which is reflected upon the various organs." Dr. William N. Draper, speaking of this procedure, remarks: "It seems to be more effective than any treatment by medicine in stimulating the nerve-centers, in restoring the equilibrium of the circulation and reviving the activity of the organic functions," adding forcibly that "its best results require the appurtenances of a well-ordered establishment, where all the various methods of applying water can be wisely and skilfully directed."

Many like testimonials might be adduced to show that in the water-treatment there resides a veritable means of restoration. "Who can calculate," says Dr. Frederick Peterson, "to what degree we may thus influence the biochemical processes of the body, the metabolism of tissues, the carrying off of degenerated and toxic substances, or determine how much we may affect the vascular neuroses, the loca

anemias, and the hyperemias of the brain and spinal cord?"

Electrotherapy.—With regard to electricity, especially the static form, its use is generally conceded to the treatment of local neurasthenic symptoms, such as morbid cephalic sensations, extreme intestinal atony, weakness of the sexual organs, etc. In these conditions, both faradism and galvanism, combined or alternated, have proved beneficial. Much depends upon the competent application of this subtle force—so far as experiment has shown, its curative property in certain cases seems undeniable, while as a therapeutic agent in obstinate neuroses it is inferior to rest and hydrotherapy.

Drug-Treatment.—The treatment of neurasthenia is marred by the usual quackeries which fix upon a single symptom as the disease. The drugs generally prescribed for their tonic effect are, as Bremer observes, nux vomica or its alkaloids, arsenic, phosphorus, quinine, bromides, iron, hypophosphites, and a few others. None of these remedies will cure; iron is particularly objectionable, as it is, as a rule, not well borne by the neurasthenic. Quinine often is administered in excessive doses for the erroneously assumed complication of malarial infection.

There is no drug (and I say this after careful and long observation) which can restore or create nerve-strength and brain-vigor, as is so often claimed by proprietary-medicine men. The majority of the much advertised nerve tonics are not worth a trial. But these articles are in great vogue, owing to recommendations of sadly mistaken physicians in good standing. The thousands of barrels of "nerve tonics" taken annually mean misery to untold numbers of neurasthenics and their families, since such patients, when poor, consider it of greater importance to buy their "nerve tonics" at the rate of $1.00 a bottle than to provide necessities for the family.

Physical Exercise.—These drug-prescription errors are complicated with errors involving exercise and diet.

One of the commonest and most disastrous prescriptions of this kind given to the neurasthenic, as Bremer properly says, is to "take plenty of fresh air and exercise." The "fresh" part of the injunction is all right (in some sanitariums such patients are often compelled to be in the open air all day, even though in bed and when too weak to move about or sit up), but the prescribing of "exercise" is all wrong. There is a widespread delusion that exercise is beneficial under all circumstances. The acme is reached when the gymnasium and athletics are recommended to every neurasthenic. Many athletes and prize-fighters become neurasthenics by dint of too much muscular exercise. Even in laboring men who have heavy work to perform, nervous prostration often results.

Whenever and as often as a muscle is contracted certain brain cells enter into activity. The brain in one or more of its parts is, in neurasthenics, the easiest irritated and exhausted. Going to the close functional dependence and interdependence of all parts of the brain, work of the motor region governing muscle contraction during exercise must affect other weakened and easily irritable parts. Some cerebrasthenics whose slightest mental effort is followed by brain-fag can walk long distances without feeling any fatigue—but this is often an expression of overfatigue.

The Diet is an important factor, but, like other measures, this also often is badly abused. Neurasthenics not seldom are advised to eat plenty of nourishing food; and they will gorge themselves, without considering that it is not the amount of nutriment—even when properly digested and absorbed—which determines nutrition, but the use to which the digested food can be put in the tissues.

The artificial foods have the effect of weakening the stomach by rendering it, so to speak, apathetic, thus interfering with the churning of the food and the secretion of gastric juice. One ounce of butter with bread digested naturally outweighs a pound of beef incorporated in the system under artificial conditions. Beef extracts are especially objectionable for neurasthenics. Milk and fresh fruit often disagree with these patients.

Dietetics, therefore, should be a matter of individual prescription rather than of

any general directions. Excess of the proteids and excess of the starches and sugars are to be avoided, since the two excesses acting in a vicious circle aggravate each other. Starchy food fermenting in the intestine favors absorption of proteid products of decomposition.

The General Principles of Treatment consist in educating the patient to live within his nerve-energy income—which is excessively small. The man of average strength cannot with impunity attempt to perform the muscular feats of an athlete or prize-fighter. Likewise, the neurasthenic cannot do what many of his acquaintances do. He must forego a great many pleasures; abstain from many pastimes and entertainments; refrain from many articles of food which to him seem simple, natural and healthful, but, nevertheless, stand in the say of his recovery. He must, above all, learn his limits.

His treatment must be a sort of education, teaching him to be patient and temperate in all things. He must learn to adapt himself to his surroundings, to reestablish the lost normal equilibrium between himself as an individual and his environment. To mitigate is not to prevent the collapse, which constitutes such a discouraging feature in the course and progress of neurasthenia, discouraging alike to patient and the family.

To achieve this, the patient must be taught to avoid extremes, especially of emotion and also of work, mental or physical; in short, bodily and mental hygiene adapted to his individuality must be instituted. No rest-cure, no seaside, no gymnastics, no cold or warm water, in fact, no one particular method is equally applicable to all the cases. And drugs alone will not bring about restoration to health.

Some Specific Advice.—There are certain remedies, however, that will be found of great value in many cases of neurasthenia.

Knowing, as we do, that there is always an autotoxemia in these cases, it follows that free elimination, through all emunctories, especially the bowels and kidneys, is necessary. Hydrotherapy and balneotherapy, as already indicated, favor elimination through the skin and kidneys. But the bowels should be kept active, and that by remedies which do not by their secondary action tend to constipate or to disturb the stomach. I have found some simple laxative saline, like sodium phosphate, rochelle salt, or, what has proved of special value in many cases of mine, an effervescent saline laxative usually to act best.

As a general tonic in convalescence, strychnine and arsenic; and if the case is one of sexual neurasthenia, triple arsenates (strychnine, quinine and iron) with nuclein, will prove of great value.

But during the entire course of the treatment the patient should be under the control of a physician, and during treatment should be severed from the environment in which the disorder has grown up. He should receive dietary, hydrotherapeutic, balneotherapeutic, and drug treatment only as indicated in his particular case. The great results formerly attained at watering places were due to the partial application of these principles and to the medical control exercised.

No rest-cure is properly carried out where the principles indicated are neglected. Rest-cures under lay control, whether of trained nurses or otherwise, are simply quackish lounging places. That the training of a widely advertised system of rest-cure is eminently deficient is shown by the fact that nurses trained under that system never detected the untoward actions of drugs used in treatment until decades after their existence had been pointed out by neurologists.

In conclusion, it may be stated, in general terms, that the malady now recognized as neurasthenia, complex as are its various manifestations, and obscure, often, in its etiology, is more amenable to successful treatment than is commonly supposed. I have indicated the prominent features to be considered, together with the means of alleviation and cure proved by actual test to be most efficient. No victim of the wide-spread malady should despair, or imagine that his case, however aggravated, may not yield to intelligent

care and the employment of methods whose record augurs the happiest results.

GEORGE F. BUTLER.

Chicago, Ill.

THE MEDICAL TREATMENT OF NEURASTHENIA

Few diseases so well illustrate the ancient tale of the seven blind men and the elephant as does neurasthenia. Most of us, in forming a mental conception of any malady, are influenced especially by some single case that has made a particularly powerful impression upon us. Same with other things—many of us, if asked to describe an ideal woman, would immediately begin with the inventory of some single specimen. Some would be just tall enough, plump enough, fair enough, her eyes would be——? her hair——? nose——? and so along the list of charms. She would be beautiful, amiable, witty, fascinating; and, above all, she would believe the portrayer just about right.

Dr. Gould would unhesitatingly ascribe neurasthenia to eyestrain, and adduce many telling examples of relief afforded by fitting the eyes with glasses. Each specialist could "copper" this by cases of his own, of similar import. Acton and the early, or theologic, school of specialists in the study of sexual excess attributed neurasthenia to this cause. This commends itself to many as very likely to be true; but the lesson taught by impartial, open-eye and open-mind observation is rather the astonishing abuse of the sexual function nature can endure without permanent injury. I mean in the young. The train of symptoms described in "Mlle. X, My Wife," must be peculiar to France, for never in my forty years of practice have I witnessed any case of the sort, from sex-excess.

Fecal Autotoxemia an Ever-present Element.—Two etiologic factors are constantly present in neurasthenia—fecal autotoxemia and a drain of nerve-force. The latter may be in an eye needing aid, or any other fault that is a constant source of slight irritation. A corn may answer, as every step causes a little pain or discomfort, and the aggregate loss of nervous energy in a day is considerable. It is apt to be some slight irritation, too little to induce the individual to have the nuisance abolished. The result is a leakage of nerve-force, a loss that prevents the individual accumulating a reserve, inducing that irritable weakness we term erethism. Slight causes induce explosions of temper, that by a normal person would be unnoticed, and these further exhaust the already scanty supply of vitality.

It is immaterial whether we set down fecal toxemia as an etiologic or a semeiologic feature, it is always present as cause or effect; and if the latter, it contributes to the aggravation of the original malady. The influence of a strain of fecal toxins in the blood upon the delicate extrasensitive nervous cells can not but be harmful. Health to the nerve-centers and nerve-fibers means a plentiful supply of nutriment in the shape of pure, clean, normal blood.

That the emotions, sentiments, and beliefs may be tinged and influenced by such a toxin, is abundantly evident to the reader of Samuel Johnson, Carlyle, and other of the great morbid grouches. There is a story told of Voltaire, that one day, after comparing sentiments with an English lord, the two came to the conclusion that life was not worth while and agreed to commit suicide next morning. The Briton came to the appointment on time, but Voltaire excused himself with the remark that "his bowels had moved meantime." If the mental functions can be so powerfully influenced by fecal toxins, where is the difficulty in attributing to the same cause a similar interference with the physiologic functions, as presided over by the nerves?

The First Therapeutic Duty is, therefore, that thorough cleansing and disinfection of the alimentary canal we inculcate as a routine measure, and which is always applicable, except in the few cases where specifically contraindicated. No matter if there is a troublesome and debilitating diarrhea; if the urine tests show the presence of skatol or even of indican, there is retained fecal matter that must be dislodged, while reaccumulation must be prevented.

But here we come upon the *leading principle* in the treatment of neurasthenia: the quick exhaustion of the patient's excitability, and consequent depression, following very moderate doses. Cathartics suitable for ordinary persons can not be given to neurasthenics. The mildest laxatives and intestinal tonics are to be employed, and then very cautiously; these to be aided by similarly cautious abdominal massage and passive exercises. The enema is a cause of rectal debility.

Intestinal Regulators.—After the bowels have once been emptied by colonic flushing and saline laxatives, they may be regulated by the smallest doses of cascarin, or the combinations of aloin, strychnine, atropine, capsicin and emetin, that will induce one daily evacuation. This is to be taken in three doses, to secure a tonic rather than a stimulant action.

Tests of the urine should be made, to ensure full action It is a nice bit of work to meet this need exactly.

The next indication is to *find the leak* and mend it, whatever it may be. Many an abnormality is so trifling that the patient refuses to believe it has aught to do with his ill health. Treat whatever you can find that needs treatment, no matter if there is no obvious connection with the symptoms.

The Restoration of Nerve-force would seem to demand that prince of nervines, strychnine. But here again we meet the difficulty of quick exhaustion of reactive power. Only the smallest doses are advisable, and generally we shall do better by substituting the milder brucine. Even of this, 1-2 milligram every one to four hours is better than large doses three times a day.

If the patient requires iron or quinine, as he usually does, the same principle of very small and frequent dosage is applicable. Many of these patients do better without arsenic, in truth, often have been drugged too freely with this potent remedy. One milligram of quinine hydroferrocyanide with each dose of brucine is a good average dose. Let these be taken on the tongue, in granule form, and allowed to dissolve and be absorbed thence.

Dietary Regimen.—Then always improve the chance of a little extra gastric strength, by giving a little food within twenty minutes, when the toning of digestion is at its height. Give but an ounce or two of some soft, easily digested food, such as that particular patient craves and can digest. Artificial digestants should always accompany the food, to initiate the digestive process, a thing more difficult in neurasthenia than the completing of it when once begun. The vegetable digestant papayotin is of great value, but sometimes hydrochloric acid and pepsin do better. Here also the small dose of acid must rule.

To Improve Vital Powers.—Quite frequently it is well to give the vital powers a little boost by a week of zinc phosphide; a centigram one hour before meals, so as to prevent its decomposition by the gastric juice and the development of phosphoreted-hydrogen eructations. Then follow with lecithin for the rest of the month.

The use of nuclein should be governed by the blood examination. If the leukocytes are scanty, put 10 drops of nuclein solution on the tongue four times a day, to be absorbed from the buccal mucosa. So, also, if the red corpuscles and hemoglobin are below par, the ordinary food may be reinforced by several small doses daily of bovinine, sanguiferrin, or some similar product. The materials are so nearly homologous with the blood that they are assimilated with less difficulty. This renders the raw white of egg a useful article of diet.

The same rule of speedy exhaustion applies to the no-drug therapeutics. I have seen many cases of neurasthenia turned out from the masseurs and electricians worse than they went there. One of the worst cases that ever applied to me came from an institution where they "used no drugs." The lady went to bed, and remained there a week before she had recovered sufficiently to feel like getting up and dressing. Her exhaustion was pitiable. Nevertheless these things are very useful adjuncts to a well-devised drug and dietary treatment, when applied sensibly. Beware of the enthusiast.

The management of a neurasthenic is a matter of months, even of a year or more.

Be content to make haste slowly, with a little evident improvement in place of a little evident decline. Many a slip will follow rashness and disobedience. Rebuilding a decaying body is no slight or easy task. The causes that induced the exhaustion will confirm it if permitted to remain in operation.

WILLIAM F. WAUGH.

Chicago, Ill.

COMMENT ON THE LESSON

Treatment of Gout.—We have quoted from Dr. W. C. Post, Maquoketa, Iowa, very many times, but we feel sure that our readers are interested in what the doctor has to say. We quote this month from his paper on the treatment of gout. He outlines his method of medicinal treatment for an acute attack as follows:

"Calomel, 1-6 grain; bilein, 1-8 grain; podophyllin, 1-6 grain, every half hour for six or eight doses, followed by a full dose of effervescent magnesium sulphate, this last to be kept up every morning until convalescence. Veratrine, 1-134 grain, every two hours, well diluted, with the addition of aconitine, 1-134 grain, if temperature is high. Calcium sulphocarbolate, 10 grains in solution every two hours till stools have a normal odor, then four times a day. Colchicine, 1-67 to 1-33 grain at night, in solution, for its specific effect, varying dose according to gastric or intestinal disturbance. If pain is very acute, add 10 grains of aspirin to the doses of calcium sulphocarbolate. Apply spirosal, betula oil (oil of wintergreen) to the joints and wrap with cotton or wool. Give plenty of pure but not cold water. Do not use sodium salts in acute gout, but salts of calcium and magnesium preferably, as these best neutralize the intestinal and hemic acidosis which precipitates the attack."

We again quote from Dr. Ernst, Brigdewater, Nova Scotia, to give his method of treatment of gout:

"I had a case last winter, in a widow, age 44, who consulted me for hives, as she thought. Examining her urine, I found the excretion of urinary solids very much below normal. Uric-acid crystals were found in the sediment. The woman was very plethoric, had a great appetite, but was unable to take much exercise in the open air. I found it necessary to cut down her diet to milk, eggs, fruit and vegetables, for about two weeks; and of that only enough to satisfy hunger. The woman followed her work all through the treatment. Every night at bedtime enough pilocarpine was given to produce slight sweating; some nights veratrine, gr. 1-134, was also given. The bowels were kept quite free with calomel, podophyllin, and salines, given on the Abbott plan; and enough sulphocarbolates were given to keep the stools sweet and clean. A calcalith tablet was given, with a glass of water, every four hours during the day. All the medicine was given 'to effect.' It required about three weeks to remove the trouble, and patient continued to take the medicine for about two weeks longer. It is now about four months since the attack, without any signs of the trouble returning. Patient lost several pounds during the time she was taking medicine."

EXAMINATION QUESTIONS

1. What is neurasthenia? What causes it? Outline briefly its most important symptoms.

2. Differentiate carefully between neurasthenia and hysteria.

3. Give the relationship between neurasthenia and the occurrence of indigestion, telling of the characteristics of the cases of "nervous dyspepsia", so called.

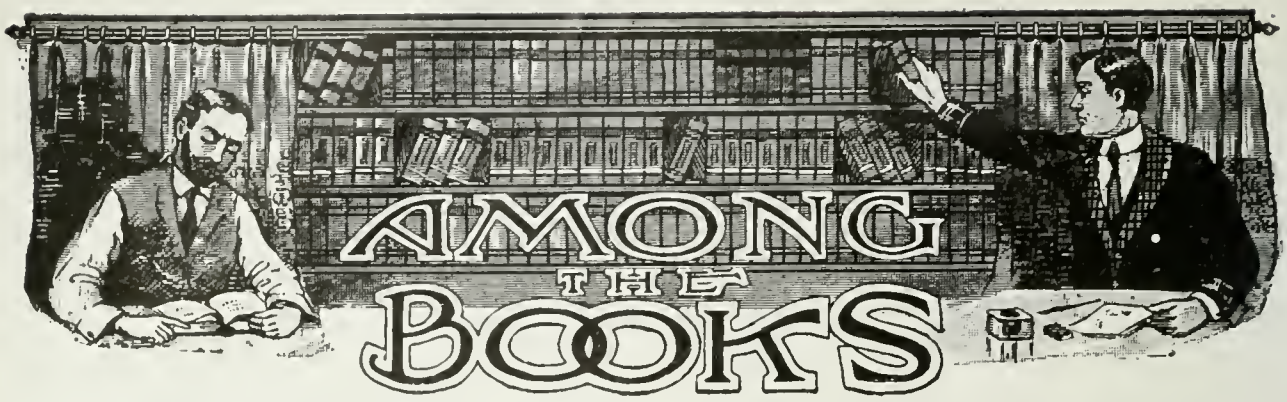
4. Outline the "rest-treatment," telling us what American physician first made this treatment prominent. Describe hydrotherapeutic measures which are of value.

5. What relation does autotoxemia bear to neurasthenia, and what therapeutic measures do you suggest for its correction?

6. What tonic medication would you advise? What two drugs are, in your opinion, most generally useful? What drug, frequently given in these cases, is generally contraindicated?

7. Outline a dietary scheme for a neurasthenic woman who is below her normal weight.

8. Describe a case occurring in your own practice, and tell how you treated it.



KNOPF'S "TUBERCULOSIS"

Tuberculosis as a Disease of the Masses, and How to Combat It. International Prize Essay. By S. Adolphus Knopf, M. D. New York. Seventh American edition, thoroughly revised and greatly enlarged. 1911. Price, single copy, in paper, 25 cents; 20 or more copies, 20 cents each; postage extra; 50 or more copies, 15 cents each, postage extra. Elegantly bound in cloth, 50 cents each, postage prepaid; 20 or more copies, 40 cents each, postage extra.

It is not necessary to introduce to our readers Professor Knopf's well-known prize essay on tuberculosis, because in its earlier editions it has had a circulation probably wider than any other publication of the kind, not only in this country and in Europe, but all over the civilized world. The monograph has been published in 27 foreign editions and in 24 different languages.

The present edition is more than half as large again as the first one, and presents in brief and clear terms the practical results of tuberculosis study so far as they are of interest and value to the laity. We would certainly advise our readers to order for their patients a number of copies of this excellent little pamphlet and to be sure and study it themselves.

The Bookworm has consulted the little volume quite often and always found it of valuable assistance, both in his popular essays and in his talks to the laity on tuberculosis. He acknowledges gratefully his indebtedness to Dr. Knopf, than whom nobody in this country does more to teach the people how to live so as to prevent the acquirement of consumption and, if the disease is actually established, how to live so as to check its advance and also how to prevent the spread of infection.

BUTLER'S "PHYSICIAN DETECTIVE"

The Exploits of a Physician Detective. By George F. Butler, M. D. Chicago: The Clinic Publishing Company. 1908. Price $1.00.

The Bookworm has repeatedly written in encouragement of outside reading for physicians, that is, reading of nonmedical books, and has emphasized the interest which we naturally feel for books written by physicians and for those concerning physicians.

Turning the pages of Dr. Butler's detective stories, during a few leisure moments, the writer was impressed with the psychologic problems involved in them. To mention only one, the first story deals with a phase of religious mania in a cultured and refined woman that makes even murder appear a pleasing sacrifice to the Almighty. Every physician has seen enough instances of mental aberration to grant that such *outré* things can really happen. Dr. Butler has told these stories in a very fascinating manner, and the readers of CLINICAL MEDICINE will do well to secure a copy.

THE PRESCRIBER

The Bookworm was recently favored with the bound fourth volume of *The Prescriber* (1910). This is a most excellent little monthly journal, edited by Thomas Stephenson, F. R. S. E., F. C. S., 137 George St., Edinburg.

While the volume does not, of course, lend itself to review, we wish to say that we

have throughout the year read and consulted the monthly copies of the journal with considerable interest and advantage. The editorials are distinguished by their erudition and conservative progressiveness, if we may use this paradox; the abstracts from current scientific literature are complete enough to serve their purpose and in many cases even complete enough for research-workers. *The Prescriber* has set itself the task of following and recording the therapeutic progress, and this task is excellently accomplished. The subscription price of only 5 shillings a year is low, and the value received is immense. We congratulate Dr. Stephenson on his splendid little journal.

"STATE BOARD EXAMINATION QUESTIONS"

State-Board Examination Questions and Answers of Forty-one States and Two Canadian Provinces. Third Edition, revised and greatly enlarged. New York: William Wood & Co. 1910. Price $3.00, net.

A book of which a third edition is called for, only three years after its first publication, does not need any recommendation. The fact speaks for itself. The volume before us is a practical work, giving authentic questions and authoritative answers that will prove helpful in passing state-board examinations. The text is reprinted from *The Medical Record.*

ALBRIGHT'S "RECTAL DISEASES"

A Practical Treatise on Rectal Diseases: Their Diagnosis and Treatment by Ambulant Methods. By Jacob Dissinger Albright, M. D. With 32 plates, 4 of which are in colors, and 39 illustrations throughout the text. Published by the author, 3228 North Broad Street, Philadelphia. 1909. Price $4.00.

The author of this volume is well known to physicians through his numerous writings, which all have the purpose of aiding the general practitioner in enlarging his usefulness and in improving his condition. In his "The General Practitioner as a Specialist," a book which has passed through several editions, much information and encouragement is given, tending to make office practice both successful and remunerative.

In the present volume Dr. Albright deals with one particular field of medical activity which cannot be said to be overcrowded, and which yet promises, not only fair, but excellent returns for one who acquires the proper qualifications. The treatment of rectal diseases by ambulant methods is important because of the well-known fear of the hospital and of general anesthetics and because of the natural reluctance to being "shelved" even for a few weeks.

Any book that comes from Dr. Albright's pen carries its own recommendation. We do not feel the need of discussing the author's views beyond saying that they are well presented. Diagnosis, etiology, and treatment of the various rectal and anal diseases are clearly set forth, without any undue recourse to "laboratory language" which to many practitioners would be worse than Greek. The book is intended for the practitioner and is well calculated to be of great assistance to him.

COCROFT'S "GROWTH IN SILENCE"

Growth in Silence. By Susanna Cocroft. Published by the Physical Culture Extension Society, Chicago.

This little booklet, adorned with the well-known picture of Miss Cocroft, is a pretty collection of "good thoughts" such as are claimed by many to be conducive to obtaining and preserving health. And who shall gainsay this assertion? Physicians have, until in quite recent years, been altogether too oblivious of the importance of the mental attitude and peace in securing health, and the lesson has, in fact, been taught us, not by physicians, but by lay men and lay women.

Miss Cocroft's picture has for years been a familiar one in the better class of popular journals, pointing out the advertisements of her physical-culture courses, and if we are to judge the efficiency of her teachings from their effects upon herself, we must confess that she looks younger today than she did years ago.

Miss Cocroft evidently belongs to the "don't-worry club" and insists strongly on the necessity of mental repose for the attainment of physical health. But in other ways, too, her advice is sound: "A well-poised mind finds its physical expression in head erect, the back of the neck nearly straight, the shoulders level, the chest and lungs well developed, the spine nearly straight to the waist, and the hips well back—the whole being expressing uprightness, a tendency to reach upward, to lift one's very being to the heights—this is the expression of freedom, mental, moral, and physical." Verily, physicians might properly pay a little more attention to mental repose, and might learn some valuable and useful lessons from socalled irregular practitioners and "physical culture cranks" (save the mark!).

BARNESBY'S "MEDICAL CHAOS AND CRIME"

Medical Chaos and Crime. By Norman Barnesby, M. D. Mitchell Kennerley, London and New York. 1910. Price $2.00.

For a long time we could not bring ourselves to read this book through, and cannot to this day see the *raison d'être* of such a publication. If it is intended for the public, it is muck-raking of the worst kind, because it would then tend to discredit the medical profession at large, through the sins of the few, to a degree and extent which in its ulterior consequences would needs have to reflect unfavorably on the health of the public; since, after all, physicians (and by physicians we mean the regular profession) are the proper guardians of the public health.

If the book was intended as a warning cry to the profession, it was needless, because, as has been pointed out in *The Critic and Guide* some time ago, almost all the evidence which the author collected with a zeal and energy worthy of a better object was taken from medical publications, showing that the profession is entirely and fully awake to the existence of the black sheep within its fold and that the serious-minded and honest members of the profession are doing their best to improve irregularities and to weed out, not only the unfit, but also the unworthy.

It, then, appears to follow that the book belongs to that class of publications which would better not have been written, and, frankly, we have a strong suspicion that the ulterior motive was not an entirely disinterested one, whether for financial reasons or from the desire for notoriety. We absolutely fail to see how a book of this character can do any good.

The evils which are pointed out are well known, are best known to the profession, are discussed and condemned, and the men who are guilty of them are made to feel that they are guilty. It is unfair to single out one class of men who, in the vast majority of its members, are upright, honest and sincere physicians, and to condemn them as a class for the sins of the very, very few.

The gentle art of muck-raking is rather a contemptible pastime, and we sincerely wish that the book had never been written, and having been written, that it had not found a publisher.

ACHARD.

FORD'S "REGIONAL ANATOMY"

Handbook of Regional Anatomy. By Francis C. Ford, A. B., M. D. Published by the author. Chicago. 1910 (1216 Masonic Temple). Price $1.50.

A useful work, containing much information in small compass.

LOWRY'S "TRUTHS"

Truths: Talks with a Boy Concerning Himself. By E. B. Lowry. Chicago: Forbes & Co. 1911. Price 50 cents net.

This is a companion volume to "Confidences; Talks with a Young Girl Concerning Herself," and attempts to do for the growing boy what "Confidences" accomplishes for his sister.

MUSSER-KELLY'S "PRACTICAL TREATMENT"

A Handbook of Practical Treatment. By Many Writers. Edited by John H.

Musser, M. D., LL. D., and A. O. J. Kelly, A. M., M. D. Vol. I. Philadelphia: W. B. Saunders Company. 1911. Price, cloth, $6.00 net.

To judge from the list of contributors, this handbook, which is to consist of three volumes, will form one of the most valuable additions to the physicians' libraries. Particular stress is laid on the various chapters upon the practical phases of the subjects considered; for while, as the authors say in the preface, there is in medicine an art and a science, the practising physician's chief concern is with the art rather than the science. His preeminent function is to preserve or prolong life and to mitigate suffering. His major interest is centered in the practical treatment of disease, all else conducing thereto (etiology, pathology, diagnosis) being tributary, a means to an end. Quoting from the Preface:

"The fore part of the work is devoted to a discussion, from a general viewpoint, of various therapeutic measures; the latter part, to the special treatment of the many general and local diseases. The subjects discussed from a general viewpoint comprise prophylaxis, diet, drugs, exercise, massage, mechanotherapy, psychotherapy, hydrotherapy, balneotherapy, climatotherapy, aerotherapy, electrotherapy, and radiotherapy, as well as other miscellaneous, well-known and justly prized therapeutic measures; but, in addition, emphasis has been laid upon certain sorts of specific therapy, which, resulting directly from painstaking scientific study and investigation, especially in the domain of pharmacology and chemistry, have enhanced the art of medicine and materially augmented the resources of therapeutics—such as organotherapy, serum therapy, bacteriotherapy, vaccine therapy, and chemotherapy."

The 909 pages of the first volume contain 23 chapters discussing as many different subjects, such as prophylaxis, dietetics, drug treatment, serum therapy, organotherapy, electrotherapy, radiotherapy, climatotherapy, etc., so that it is practically impossible to review the volume as a whole. However, the reviewer was particularly interested in the introductory chapter by Dr. Musser, on The Fundamental Principles of Therapeutics.

The author, in this chapter, discusses in a masterly and attractive manner the nature of disease and the mechanism of the organic resistance to disease or to the agencies which may be productive of disease. From a consideration of the biologic defense set up by the organism against anything that may exert an injurious action upon it, he passes on to a description of the morphologic and the physiologic expressions of disease and to the exogenic causes of disease. The defense of the organism is discussed in a particularly interesting manner, and the discussion is certain to assist the physician greatly in obtaining a clearer conception of the fundamental principles underlying the production and course of disease from which the means taken to combat it may be elaborated. The aids to the defenses of the organism which are then discussed form a general dissertation on therapeutics, and Dr. Musser's conception of treatment is attractive, to say the least.

The modern researches, not only in physiology and pathology, but still more in biology, have solved so may problems and have given us such a beautiful insight into the workings of the normal as well as of the diseased organism, that the problem of treatment of disease no longer constitutes merely a question of what drugs to prescribe or what mechanical agent to employ. The task has become a much larger one, but we are correspondingly better enabled to meet conditions which we find and to assist the organism in restoring physiological or normal conditions, thereby to remove the cause of disease and eventually the disease itself, i. e., to cure it. For the accomplishment of this end this work offers an excellent guide the careful and continued study of which must immensely benefit ourselves directly and our patients mediately.

SOME BOOKS ON GYNECOLOGY

Gynecological Diagnosis. By Walter L. Burrage, A. M., M. D. With 207 Text Illustrations. New York: D. Appleton & Co. 1910. Price $6.00.

This is an important contribution to medical literature, the more so as the author, to quote from the preface, has "attempted to keep in the background the rare diseases which are of so much interest to the specialist and to give prominence to the common affections usually met by the general practitioner." In this attempt he has fully succeeded. The usefulness of the book is increased by chapters on diagnosis of the diseases of the bladder, the rectum, and the breast. These affections often are closely linked with strictly "gynecologic" disturbances and are justly included in the textbook, which is designed as a clinical guide for the general practitioner. A further important chapter is that on constipation, the treatment of which is excellently given.

A Text-book on the Practice of Gynecology, for Practitioners and Students. By William Easterly Ashton, M. D., L. D. With 1058 new line drawings illustrating the text, by John V. Alteneder. Fourth edition; revised and enlarged. Philadelphia: W. B. Saunders Company. 1910. Price, cloth, $6.50.

Ashton's "Gynecology"' does not need an introduction. It is sufficient to announce that a new enlarged edition has appeared. Some of the additions are interesting, as for instance the employment of magnesium-sulphate solution in erysipelas of the vulva, the appreciation of straight-front corsets against the harmful old-fashioned forms. The author's technic of giving colonic flushings is interesting. The book is very complete, presenting, from all possible points of view, the diseases peculiar to women and considering both medical and surgical procedures of treatment.

Diagnosis and Treatment of Diseases of Women. By Harry Sturgeon Crossen, M. D. Second edition, revised and enlarged. With 744 engravings. St. Louis: C. V. Mosby Company. 1910. Price, cloth, $6.50.

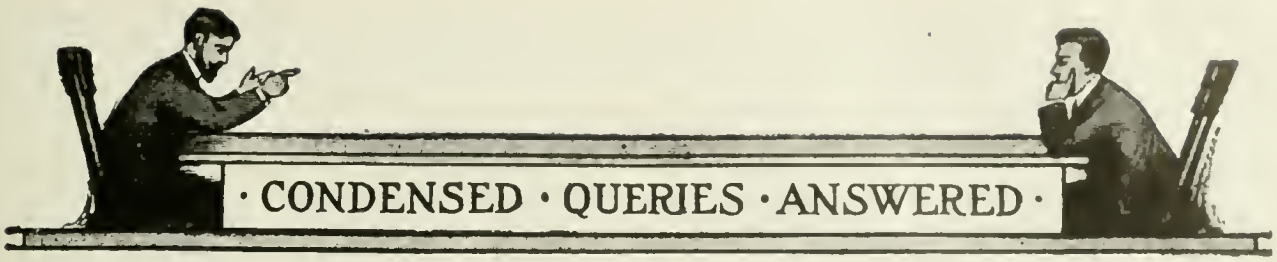
The author's endeavor has been to present clearly and in detail the foundation facts and principles of gynecology, collecting in one volume the anatomic, pathologic, diagnostic, and therapeutic information underlying successful gynecologic work.

Two hundred pages of text and fifty original illustrations have been added. The index, upon which the practical usefulness of a medical book so largely depends, has been greatly amplified, so as to include references and cross-references to every diagnostic and therapeutic item. In the new text special attention has been given to the presentation of pelvic inflammation and of tubal pregnancy—two live and important subjects, upon each of which an enormous and chaotic mass of information has accumulated. Properly to emphasize the established landmarks and to point out important features of advance work, such was the task. Disturbances of function merit, and have received, careful and detailed consideration, both from the diagnostic and therapeutic stand point.

Medicolegal complications are claiming more and more attention each year, and those having a bearing on gynecology are considered in a detailed and practical way.

LIPPINCOTT'S "INTERNATIONAL CLINICS"

Among articles of immediate interest in "International Clinics," Vol. I, 21st Series, 1911 (J. B. Lippincott Company. Price $2.00) are the papers on Pellagra, by Zeller; "606," by Wechselmann; Poliomyelitis, by Mills, and Neff; Raynaud's Disease, by Beck; and Mosquito Work in the Canal Zone, by Le Prince. Reilly's chapter on the treatment of typhoid fever is less satisfactory. Ostheimer contributes a useful and up-to-date article on Modern Infant Feeding. Mills actually devotes two and a half pages to the treatment of poliomyelitis, telling of a number of expedients he has found to be of little or no use. Neff gives a lot of interesting data on the Philadelphia cases. The best of the papers is Le Prince's account of the work down along the Canal in combating the mosquito. This essay is excellently illustrated.



PLEASE NOTE

While the editors make replies to these queries as they are able, they are very far from wishing to monopolize the stage and would be pleased to hear from any reader who can furnish further and better information. Moreover, we would urge those seeking advice to report the results, whether good or bad. In all cases please give the number of the query when writing anything concerning it. Positively no attention paid to anonymous letters.

QUERIES

QUERY 5713.—"The Radical Cure of Hemorrhoids." G. T. S., Texas, wants to know what is the best operation, in a country practice, for the removal of hemorrhoids.

We have several times, in the past few years, recommended strongly the injection-method, pointing out clearly the effectiveness and simplicity of the procedure and absence of danger. Most failures reported in the past have been due to imperfect technic or the use of too weak or complex solutions. We have yet to see the patient who does not prefer injection to excision or the ligature, and if the work is properly done, there is no detention from business or pain worth mentioning. Many men go straight from the office to their work and never lose an hour's time.

However, all piles are not suitable for injection. External piles should be incised and the clot turned out. If the tumor is of any considerable size, a stitch or even two may be used to close the incision. Inflamed mucous tags should be snipped off.

Few practicians care to use the knife, while the clamp and cautery are out of the question. The ligature, properly applied, is infinitely preferable to this procedure. However, considerable pain follows even the most skilful use of the ligature, and retention of urine is not infrequently noticed. Of course, you are familiar with the details of this slight operation, and, occasionally, pedunculated tumors are encountered which may advantageously be tied off. Such tumors, however, in the writer's opinion, should be removed with the scissors after the ligature has been firmly tied. The mucosa in every case should be incised and the ligature placed exactly in the incision. If any hemorrhage follows, which is rare, the stump may be touched with pure carbolic acid.

During the past five years the writer has injected practically all internal hemorrhoids coming under treatment, using a strong solution of carbolic acid in olive oil or purified sperm oil, in the proportion of 3 to 2, making sure of a pure product. (Merck's or Mallinckrodt's have proved thoroughly satisfactory.) The mixture should be warmed before injection and the syringe thoroughly sterilized in boiling water. When adding the crystallized carbolic acid to the oil, liquefy by heat. Some operators use glycerin as a diluent, but, in the writer's opinion, the latter is too hygroscopic to prove satisfactory. The addition of glycerite of lead, or of ergot, hydrastin, tannic acid, to the solution is undesirable. Unquestionably the best results follow the intelligent use of the formula mentioned.

The practician should realize that cleanliness is of primary importance, and only enough fluid should be injected thoroughly to coagulate the contents of the tumor. The external parts should be cleansed with soap and an antiseptic, then swabbed with alcohol.

Lubricate the canal, and, if any constriction of the sphincter ani exists, dilate—if necessary, under primary anesthesia. The patient should now be placed on the side opposite to that on which the piles are located and the speculum inserted

gently, the Brinkerhoff or Matthews being perhaps the best for the purpose. The tumor to be operated upon should project downward through the opening in the speculum when the slide is withdrawn. The patient should strain at this point and the operator make quite sure that the entire tumor is in view.

Fill an all-glass syringe, of a capacity of 20 minims, with the fluid, attach a 20- or 22-gauge (or slightly coarser) needle (the exact size of the needle is immaterial providing it is not less than an inch long and permits the free exit of the fluid); elevate the syringe, express a small quantity of the fluid, wipe off the needle, lubricate the hemorrhoid with carbolated vaseline, and quickly thrust the needle into the pendent tumor *half way between the base and apex*. The point of the needle should not penetrate further than to the center of the hemorrhoid. Inject the fluid drop by drop, gradually changing the direction of the point and withdrawing it slightly as the tumor whitens. As soon as the tumor is blanched and hard, the needle may be withdrawn slowly, a last drop of carbolic solution being deposited just within the mucous coat. It takes five minutes, as a rule, thoroughly to treat an ordinary hemorrhoid. If on withdrawal of the needle blood follows, more of the solution must be injected, the needle preferably being inserted at another point.

Some hemorrhoids are multilocular and a portion of the tumor remains unblanched by the injected fluid. In such cases the needle must be inserted into the unaffected cavity (it is usually small) and a few minims of the carbolic solution injected. The largest tumors can be destroyed with 20 minims of a strong oil solution of carbolic acid properly injected. Weak solutions and punctures of the intestinal wall have caused nine-tenths of the failures.

If the operation is properly performed, the entire tumor up to its base will now be white and hard. Two or three ordinary-sized hemorrhoids may be injected at one sitting, preferably those upon one side of the intestine. The bowel should finally be well lubricated with a soothing ointment or antiseptic oil and then kept inactive for twenty-four hours. After this period a purge should be given and the patient instructed to inject, before going to stool, an ounce or two of olive oil, which may contain a minim or two of carbolic acid or other antiseptic. Carbenzol or a similar ointment may be used advantageously. After stool the bowel should be thoroughly irrigated with salt water and more of the ointment inserted; preferably with a rubber "pile pipe," warm.

Rarely a patient complains of pain; if he does, a suppository containing extract of hyoscyamus or a little morphine may be ordered. Ninety patients out of a hundred require no attention whatever and follow their usual vocations.

If the tumors injected have been large and proctitis coexists, the patient should remain in a recumbent position for a day or two after injection. The bowels should be kept lubricated, a hot enema following each stool. Phenolphthalein and compound licorice powder, in the proportion of 1 grain to 5, if given at bedtime, will produce a soft, mushy evacuation next morning. From 10 to 20 grains is the dose for an adult.

Theoretically, small tumors should be injected first, but as a matter of fact, if one or two large hemorrhoids are injected, the smaller ones usually disappear spontaneously. Hydrastin, hamamelin, and esculin, 1-3 grain each, should always be given three or four times daily.

In very rare cases secondary hemorrhage occurs. This can be controlled by packing the rectum with gauze smeared with an ointment containing an extract of suprarenal gland, or a fairly strong solution of hydrastin and thuja may be injected. The deep ulceration which has been complained of by some operators never appears unless the fluid had been injected into the bowel-wall. There is no excuse for such an "accident," and if the technic outlined herewith is followed closely, the tumor will drop off without the occurrence of suppuration or any marked inflammatory symptoms.

It is hardly necessary to point out the desirability of thoroughly opening the bowels a day or two prior to the operation.

The importance of thorough dilatation of the sphincter ani has already been pointed out.

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Query 5714.—"Brachial Neuritis." W. H. C., Tennessee, has a patient suffering from brachial neuritis since last August. She is forty-seven years old, married, and has a family. The affection was variously diagnosed in her home town, but she did not improve and came under our correspondent's care in April. At that time her condition was as follows:

She suffered with pain at night in her right shoulder and arm, and felt pain on any start or sudden movement; there were tender spots at various places along the course of the nerves, hand being swelled and burning, fingers semiflexed and helpless; they were painful on any attempt at passive motion beyond a limited range; knuckles were enlarged and reddened. Although she was generally cheerful, there was a drawn look on the face from constant pain.

Treatment, at first, was eliminative and antirheumatic, then tonic. Galvanic current (positive pole) to tender points, negative to the hand; vibratory treatment to muscles of arm and shoulder.

At present her general health is excellent and she has no pain at night; tender spots are gradually disappearing; hand is more nearly normal in appearance, but the fingers, although somewhat more flexible than at first, are not regaining their usefulness as rapidly as could be wished, and she is still sensitive to changes in the weather, having what she calls "rain-pains" in the affected arm. Motion in the shoulder-joint is lessened, so that she cannot raise the arm, but the elbow has good action.

Brachial neuritis, we all know, proves rebellious to treatment in a great many cases. The question is just what caused it in this case. If a neuroma exists, it should be recognized, and an operation may be essential. When the circumflex nerve is affected, there is inability to raise the arm, considerable wasting of the muscles, and there may be localized anesthesia. The musculospiral is more often paralyzed than any other nerve, its position rendering it particularly liable to pressure. If the nerve is affected, we get wrist-drop, finger-drop (inability to extend the hand on the forearm). The first phalanges of the fingers and thumb are also involved. Sensory symptoms vary. There may be slight impairment or a tingling, burning sensation.

You do not give any history of the arm being injured. Neither do you say that a tumor or aneurism exists. Look into the case thoroughly, doctor. As we are aware, exposure to cold occasionally produces neuritis. Neuralgic pains in the neck and shoulder usually precede more definite symptoms of nerve involvement. Primary brachial neuritis usually occurs after middle life, especially in individuals with a gouty history (uric acidemia). In such cases we have paroxysmal or continuous pain, increased by any movement of the arm, tenderness on pressure over the affected nerves.

Faradization, or, better, the use of the sinusoidal current, proves useful, and we have secured some remarkable results from the application of guaiacol and methyl salicylate, rubbed in well after sponging the affected arm with a hot solution of epsom salt. Internal treatment depends to a great extent upon the conditions present. Nucleinated phosphates, neuro-lecithin and macrotin are always indicated. Elimination must be maintained. What are the pelvic conditions here? Is the menopause over? Upon receipt of further data, we shall be pleased to make further and more definite therapeutic suggestions.

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Query 5715.—"Obstinate Nasal Hemorrhage." A. V. P., Pennsylvania, asks: "Is there any cure for a girl 25 years old who has obstinate nose bleeding? Nothing seems to aid her. She has had repeated attacks of late and nearly bleeds to death before the flow stops."

In all cases of nasal bleeding, locate, if possible, the hemorrhagic area. It may be necessary to cauterize a small ulcer or erosion. Are any other members of the family "bleeders"? What conditions are revealed by the nasal speculum and reflected light? Is the girl full-blooded or anemic? Is the hemorrhage always from

the same nostril? Does the bleeding occur at definite intervals?

Atropine in small doses and the application of adrenalin chloride on gauze or cotton should be tried. Iron-alum may be insufflated or applied in strong solution. It is not a difficult matter to stop the bleeding, once the source is discovered. It may be necessary to plug the posterior nares. Calcium lactate and calcium chloride may be given if examination reveals any blood abnormality.

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Query 5716.—"Another Attack on Calomel." W. H. Y., Arkansas, propounds the query, "Is calomel harmless?" and to prove its toxic character, he recites the case of one of his town's best citizens. This man was being chilled with malarial shakes, but nothing else, apparently, ailed him. Calomel was taken and salivation produced, with resulting sloughing of the gums and loosening of the teeth on the fourth day. Within twelve hours thereafter, he complained of difficulty in breathing. This continued for about twenty-four hours, and ended fatally in acute edema of the lungs with suffocation.

One more victim of the king cure-all! Sighs the doctor: "Pass it up; but the calomel M. D. will never 'pass it up' long. Inconsiderate therapeutist! It is the inevitable tendency of the human mind, when it is always exercised on the same problem, to become automatic in its operation. Hence, many doctors prescribe it in a routine manner, which supplies a remedy for every bodily ill, in exchange for a penny in the slot."

Like most attacks upon calomel, this is a "blow in the dark." You ask whether calomel is harmless, and then answer the question in the negative, by quoting the results following the administration of unknown quantities of this drug in a case of malaria. You simply say: "G. G. [age and general physical condition not mentioned], chilling with malarial shakes; calomel was taken; salivation produced, with sloughing of the gums and loosening of the teeth, on the fourth day."

How much of the calomel was given? Why calomel alone? Upon what ground, doctor, do you base your conclusion that the edema of the lungs was due to the calomel? Is it not possible that the chills and "malarial shakes" evidenced the oncoming of pulmonary congestion?

Calomel given intelligently is one of the most useful remedial agents we have; so, for that matter, are aconitine, strychnine, gelseminine, and many other toxic drugs. We should not think of giving a whole grain of strychnine or half a grain of aconitine. Neither should we give calomel in large doses without flushing the intestinal tract immediately afterward with a saline. The *large* dose of calomel is not used by the modern practician. We know now that 1-6 grain, given at half-hourly or hourly intervals until six doses have been taken, will produce all the desirable results of the drug without the possibility of salivating or in any way injuring the patient.

Because calomel unwisely exhibited affects the system inimically, it does not follow that the small dose given at intervals, to effect, where indicated, should not be employed. We have for many years fought the large dose of mercurials, and urge the doctor, in season and out of season, to give small quantities of calomel or blue mass at short intervals, the usual maximum dosage being 1 grain of calomel, or 2 grains of blue mass and soda. In every case we advise the subsequent administration of a laxative saline. We have yet to see salivation or any sign of mercurialism follow such medication.

The routine prescriber *is* an undesirable member of the profession, and, as you know, the positive therapeutist's success is due to the fact that he ignores the names of diseases, but treats the pathologic conditions presented by the individual, giving small doses of the indicated remedy until effect, remedial or physiological.

Use calomel—as you should any potent remedy—in the right way, and you will find it not only harmless but extremely beneficial in a host of pathologic conditions.

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Query 5717.—"Keloid." E. E. F., Oklahoma, asks for the best method of removing keloid on the ball of the index-finger. One growth has been cut off

several times, but always recurs. This condition was caused from a slight burn about one year ago.

We should be inclined to try injections of thiosinamin in this case, giving at the same time fairly full doses of a solution of the drug internally. (That is, if the patient has no laparotomy scar that might yield.) The injection should be made every third day. In some cases better results follow the injection of the solution into and around the growth.

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Query 5718.—"Chronic Urethritis." L. B. C., Ohio, is treating a case of chronic urethritis which so far has refused to yield. Along the canal for several inches are mucous patches, and the urine is full of mucous shreds. It clears up part of the time, and then will get very bad again. There has been a good deal of pain part of the time, mostly in the prostatic urethra and in the testicles, but that is now considerably better. The mucous patches have been touched up with silver nitrate several times through the urethroscope, but the procedure does not seem to do much good.

In order to cure a case of this kind, it is absolutely essential to be familiar with the basal pathologic conditions. A specimen of urine taken the first thing upon rising in the morning (by the "three-glass" method) and a urethral swabbing should be sent to our pathologist. Just how long has this man been affected? What age is he? Is there any possibility of a mixed infection here? Any strictures? Does he drink alcohol or use tobacco excessively?

An ointment containing methylene-blue and thuja proves efficacious in a great many cases. Silver iodide has also given the writer excellent service. In simple erosions of the urethra, however, euarol is perhaps the very best remedy. There may be an infection of the lacuna magna or sinus pocularis. If so, you will never get rid of the urethritis until the infected area is treated.

How are you equipped for making post-urethral applications? Have you a urethroscope? Give us all the light you can, doctor, and we will serve you to the best of our ability.

Query 5719.—"Thrombosis of Veins of Extremity." W. H. S., Michigan, has under observation a case of thrombosis of the veins of a patient's leg following operation. In June, 1910, Mrs. S. was operated on for cystic ovary and adherent uterus. The abdominal wound suppurated, due to a piece of unsterilized gut. About eight weeks after operation, the left leg began to swell around the ankle, this gradually working upward until the entire leg was involved. The skin was not stretched tight and shiny, but varying from one-half inch to one and one-half inches larger than its fellow. The doctor asks why this thrombosis should come so late, and what would be the treatment.

Thrombosis of the veins of an extremity may follow operation any time within three months. A great deal depends upon the condition of the blood and vascular tone. The condition in this case resembles that occurring in parturition (phlegmasia alba dolens). It is a little difficult to determine just where the occlusion occurred in this case, and whether the thrombi are red or white. As you are aware, the red thrombi form in the blood by coagulation when the circulation through the vessel has ceased, e. g., after ligature or embolism. A portion of such a thrombus may have been carried into the vessels of the extremity and set up the pathologic conditions described.

White thrombi are found in the circulating blood and may be deposited about a damaged vessel or fibrinous blood, which form a surface of attraction for the sticky leukocyte and mikrocyte. These adhere and form a ferment, which causes a further deposition of fibrin from the blood. Obliterating thrombi, those completely filling a vessel, are generally red. Those adhering to a portion of the wall often are colorless.

This woman probably had some varicosity of the vessels. There may have been an excessive fibrin in the blood. The left leg is more often affected than the right. We do not like the symptoms. It must be borne in mind that thrombosis may extend upward and prove fatal. We question, personally, whether the suppurating abdominal wound had anything to do

with the subsequent thrombosis, unless the deeper structures were involved. As we are not thoroughly familiar with local and general conditions, we can not express an intelligent opinion as to the ultimate cause.

The treatment, at this late date, will have to be based, to a considerable extent, upon a clear understanding of the body-chemistry. Have specimens of this woman's urine and blood examined. Arsenic iodide may be given in small divided doses, and nuclein pushed. Bathe the leg with a hot carbolized solution of epsom salt (epsom salt, 2 ounces; water, 3 pints; carbolic acid, 10 minims). Then apply gentle pressure with a woven elastic bandage. The bathing should be repeated twice daily. We should also be inclined to massage the limb thoroughly but gently with antiseptic oil. Hamamelis has been advocated, but we have never been able to get any appreciable results from its use.

Upon receipt of clearer data, doctor, it will give us pleasure to make further suggestions. State especially whether the patient is a prima- or multipara; also prior conditions of the extremities. Has she varicose veins? Is there any renal or cardiac lesion?

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Query 5720.—"Treatment of Infected Wounds." G. L. J., Minnesota, desires an outline for the most effective plan to treat what is, by the laity, called "blood poison," resulting from a scratch or wound produced by a rusty nail and the like. He further asks about the time it takes for the symptoms to manifest themselves, the course and duration.

Punctured wounds, if deep, should be laid open wide and then irrigated with a 1 : 2000 bichloride solution and then covered with a sterilized or bichloride dressing, without suture or adhesive strapping. If a foreign body remains in the wound or the presence of poisonous substances or of bacteria is suspected, open up the tissue freely and irrigate with an antiseptic, then dress as described. Infected wounds should be carefully washed out with a germicidal solution (creolin, bichloride of mercury 1 : 2000, etc.), then dress with a moist antiseptic dressing. Alcohol dressings are gaining in favor. If, despite such dressing or for the lack of it, the wound, in a few hours, becomes inflamed and painful, and evidences of lymphatic involvement show themselves, the wound should be thoroughly cleansed, opened up if necessary, and the surface sponged with a 2-percent solution of formalin, 1 : 2000 bichloride, or 30-grain solution of chloride of zinc; then covered with antiseptic gauze.

The bowels should be kept open, and intestinal and systemic antiseptics (the sulphocarbolates, calcium sulphide, nuclein, echinacea) freely administered. An antiseptic oil may be applied advantageously to incised or infected wounds. The parts should first, however, be cleansed thoroughly with a bichloride, alcohol or formalin solution.

When on examination it is found that suppuration exists, the pus is evacuated, the parts are irrigated with hydrogen dioxide until froth ceases, then cleansed with boric-acid solution, and finally pure carbolic acid is applied—one minute—and this neutralized with alcohol. Or pure oil of turpentine (Merck) may be swabbed over the surface and into the cavities. A dressing of gauze, saturated with antiseptic oil should then be applied.

Thorough drainage is the most important part in the treatment of infected wounds. The skin surrounding the lesion should be wiped with oil of turpentine and scrubbed with antiseptic soap, then washed with a bichloride solution. Any dirt or sloughing should be removed with forceps and scissors. Then into the depths of the wound introduce a few strips of iodoform or bismuth formic-iodide gauze, to secure drainage.

Do not attempt to bring together the edges of an infected wound. If there is much discharge, dry dressings may be applied; but if the discharge is ropy or viscid, moist antiseptic dressings prove preferable. By this method it is possible to convert a septic wound into an aseptic one, and the treatment of aseptic wounds is too well known to need description. For further information, see Wharton's "Minor Surgery," or any similar book.

The American Journal of Clinical Medicine

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The American Doctor

IN his address, in Philadelphia, President Taft enumerated some of the triumphs won of late years by the American doctor. He referred to the discovery of the mosquito transmission of yellow-fever, and the results of the application of this in the eradication of this pest from Cuba.

The tropical anemia of Porto Rico was traced by Dr. Ashford to the hookworm. Half a million people there have been treated for it, and the campaign now planned is expected to rid the island of the disease.

"In the Philippines, we found, in glorious exuberance, cholera, bubonic plague, beriberi, malaria, smallpox, amebic dysentery, and leprosy, a bill of fare for the enterprising physician and knight of investigation and research calculated to make his mouth water, and a list of scourges which the civil administrator views with alarm and despair."

Cholera has been combated by bringing to Manila pure mountain water, by artesian wells in many towns, and by inoculation with cholera lymph, effecting a great reduction in the number of victims. Vaccination has put an end to smallpox. The crusade against rats and the destruction of the disease-foci have taken the terrors out of the Philippine plague. Destruction of mosquitoes has greatly moderated malaria. Amebic dysentery persists, but has been found amenable to treatment if taken in time. The lepers have been segregated, and collected in the Island of Culion, where they have been made so happy that no difficulty is now found in inducing them to go and remain there. This has reduced the new cases to 16 percent of their former number. Beriberi has been traced to the use of polished rice, and the change to unpolished grain has practically stamped out the disease.

"Investigations into the character of the intestines of the Filipinos indicate that these intestines are a veritable zoological garden of germs, microbes and bacilli, that greatly enfeeble the race; and that by proper treatment might be eliminated."

Possibly in time we may similarly investigate our home conditions, with similar results.

With this experience before them, our army doctors tackled the Panama problems, where malignant malaria and yellow-fever had more than any other one cause contributed to the failure of the French. It has been said that in the building of the Panama railroad every tie laid represented a human life lost there. In our own hands, two years were spent in the merely pre-

liminary cleaning up before the work could be begun. Colonel Gorgas stamped out yellow-fever so completely that for four years there has been not one case on the Isthmus. The percentage of deaths of foreigners in the town is much less than in our large cities. The removal of these dangers has allowed the canal work to proceed without the obstacles which defeated the French.

"Is not such a record one upon which we can dwell with the utmost national pride? Does it not speak marvels for American courage, energy, scientific thoroughness, skill, research, and power of original discovery? Other countries have been in the tropics for nearly two hundred years, and yet I do not think it an exaggeration to say that in the short twelve years that we have been responsible for the health of our people in tropical climates, we have made more progress in the discovery of methods of prevention and cure for tropical diseases that all other countries have made in those two centuries."

These facts are well known, but the following data may be new to our readers:

The ravages of typhoid fever during the Spanish War have not been forgotten. Among 120,000 men there were 20,000 cases, with a mortality of 7 percent. Ninety percent of the volunteers became infected within eight weeks from mobilization. For two months we have had 18,000 men in Texas and California, the land soaked with rain and deep with profanity-provoking mud, but so effective have been the methods adopted that the sickness has been less than in the posts from which the men were mobilized. Thanks to modern health regulations and vaccination against typhoid fever, not one case of this disease has appeared in the entire force, excepting one teamster who was not vaccinated. This is the official record from the War Office.

The data above given are taken from a report of President Taft's speech published in *The Military Surgeon*. It furnishes food for thought. The tribute to America's doctors we receive with pride. It is deserved. It shows how well we have applied the lessons supplied by the Russo-Japanese War, and the progress made since the Spanish imbroglio.

This progress is largely in the line of that preventive medicine which we have so earnestly urged. These records show what may be done by applying it to municipal and military problems, and here there is abundant room for the well-equipped, carefully trained medical sanitarian. This is only one branch of hygiene, and important as it is—striking as are the results of its effective application—it must be completed by similar attention given to domestic and personal sanitation.

Clean up the city. Purify the water, clean the streets, inspect the schoolchildren, and clean out the sluggers.

Clean up the premises. Clear away organic dirt from cellar, alley, back-yard, gutters, and house; extinguish dirt and vermin; open the windows and let in the air and sunlight, blowing out germs and dampness.

Clean up the individual. Empty and disinfect his internal cesspool, and see that his drains are unobstructed and flushed periodically. Search him for disease causes and tendencies; correct his habits; direct his energies in the wisest and most natural directions, toward the greatest productive possibilities. Let the problem be clearly appreciated—it is your duty to so study each person whose health is confided to your charge, as to provide for his longest, healthiest, happiest, most useful life. The function of the physician is very much more important than merely prescribing for one's ailments.

Taking this view of our duties, there is certainly room for far more modern doctors, and far more and better work than we are now doing.

Luck has a habit of favoring people with brains.—Silent Partner.

INTESTINAL ANTISEPTICS IN TYPHOID FEVER

In 1896 William Osler wrote: "I cannot speak from personal experience of the more recent socalled antiseptic plans of treatment which have not *raison d'être* if the

disease is not an intestinal toxemia. The evidence, so far as I can learn, is not forthcoming to show that any measures I devise can render the bowel antiseptic."

To this, a writer in *The Medical Times* for August, 1910, Dr. J. Blake White, replies, saying: "But I should like to add that there is no evidence to controvert the fact that antiseptics, introduced in frequent and sufficient doses, do render the condition of the bowel less septic than if not used at all. No local sepsis is ever totally abolished by a single antiseptic dressing. Clinical experience of accomplished and competent observers tends to prove that such antiseptics administered in the manner advised do positively lessen the septic condition of the bowel. It makes little difference if the remedies are given in small and frequent doses, provided the results in overcoming the bowel lesion are satisfactory and an early convalescence is assured.

"Pathological examination in cases which were fatal in other hands where the antiseptic treatment was used or commenced late, moreover, showed decided local benefit from the antiseptics. There was evidence of an attempt at resolution in these cases, while the contrary was discovered in fatal cases without such treatment.

"For painful urination or for a condition of the urine indicating development of cystitis, useful remedies will be suggested to the resourceful mind of the attending physician. I have not failed to meet this requirement successfully.

"The ideal treatment, then, of typhoid fever is that which, at as little expense as possible to the patient's vitality, has for its object the reinforcement of the natural powers, thereby affording a successful barrier to the encroachment of the disease; to neutralize, if not destroy, and to eliminate as far as possible the causes of disease before the product of germ infection have so far been established in the system as materially to interfere with a good physical standard of health.

"For the causes of the fever, the toxemia from local lesions, and the general blood dyscrasia, there is no better therapeutic resource than that to be found in antiseptic medication. While there is no doubt that prolonged high temperature might cause serious blood and tissue changes, the simple temporary reduction of such temperature has little advantage unless the pathological causes of high temperature are removed.

"As the probable origin of the fever appears to emanate more from the intestinal inflammation and the absorption of specific toxins, the most important therapeutic indication, therefore, would point, without question, to such remedies as are known to have the essential qualities of modifying and controlling this condition.

"I have found, as a result of this method of treatment, no affection so easily manageable as typhoid fever. It may be said that I have had to contend with but very mild types of the disease, but such cannot have been so uniformly my good fortune for so many years. On the contrary, I am convinced that the cases have been rendered benign by the early recognition of its existence and the prompt as well as continuous and faithful medication on the part of the nurses in charge. With a half-hearted and indifferent manner of nursing, I should not expect to have the good results I have the satisfaction to report. A nurse must manifest faith in her efforts and display the same zeal in achieving the best result as the physician who directs the treatment."

Fear less—hope more; eat less—chew more; whine less—breathe more; talk less—say more; hate less—love more, and all the good things are yours.

—Elbert Hubbard.

GERMS AND WHISKERS

Some years ago, the writer endeavored to prevent the extension of scarlet-fever in a household, by completely disinfecting the house and all its contents before the unaffected children returned from their banishment. The work was carried out without regard to expense, and was supposed to be thorough. One week after the children had returned, they were seized with scarlet-fever!

Going over the case, to see where the omission occurred, the doctor happened to notice that the mother's hair was very

heavy. Instantly he asked the woman whether she had disinfected her hair. She replied that she had not. When the first one of the children was ill, naturally she cared for it, and there was abundant opportunity for germs innumerable to settle in her hair. The source of the infection was disclosed!

How about the doctor's whiskers? What is there to prevent his carrying germs of any portable description about from house to house, in his whiskers? Even in dairies, conducted under the most approved modern sanitary principles, milkers are compelled to shave, and to keep their clothing covered with clean, fresh linen, their hands properly washed, and all utensils sterilized. Why, then, should the doctor be allowed to carry about with him that certain hiding place for germs, the whiskers? In fact, we would go a little further; the doctor ought to be deprived of all hirsute appendages about the face, and his head-hair should be closely clipped—or, still better, no physician should be allowed to attend patients who is not bald.

N. B. We are bald. Calls attended with neatness and dispatch.

Oh, what is success but an empty game?
What is wealth but a bauble ever?
Yet right is something more than a name
Though the wrong rides high forever.
So here is a song for the ones that live
Though fortune ne'er caress them.
And here is a toast for the souls that strive—
To the men who lose—God bless them!

PHILISTINE AND GENIUS

"We are still savage at heart. Our civilization is but mere gloss, a thin coating of paint and varnish. Our methods of inflicting pain are more refined than those of the Indian, but no less cruel, while the number of the victims sacrificed to our greed and rapacity may even exceed the numbers fallen by the sword of the barbarian or by the torch of the fanatic. The slums in our cities are foul and filthy, teeming with deadly germs of disease, where the mortality of our infants and children in some cases rises to the frightful figure of 204 per thousand!"

So laments a Boston sage, Boris Sidis (*Monthly Cyclopedia and Medical Bulletin*, December, 1910, page 708), who would be benefited much were he to take a couple of pills—maybe three!

What he says is very true. We *are* savage; we always shall be. Civilization is but a gloss; but underneath it the heart of Man beats true, as it always has, and always will. The trouble with these mournful Jeremiahs is, that they do not know what may be reasonably expected of man.

Law is not founded upon the golden rule or the assumption that men are going to do right. Laws merely regulate the preying of men upon each other. There is ever the underlying principle that each must look out for himself. Take the laws governing partnerships: That a partner should withdraw and appropriate the firm's funds is wrong but not illegal, for the law assumes that too much restriction would so fetter the activity of a firm as to be intolerable. There is, however, a constant approximation of law toward justice and right, which our lugubrious learned colleague ignores. This applies to every line of human activity. The slums grow less slummy, more sanitary, and a good deal more moral, even allowing that much vice is carefully hidden from public view. But even this is no small improvement.

Mortality is steadily falling. Plague spots are being cleaned up. Municipal and domestic hygiene progress steadily. The spirit of toleration grows stronger. Very few opinions, though contrary to convention, are now taboo or render their holder insecure in the esteem of the public. Some few topics are still excluded from public print and the mails, and it is just as well that they are.

Read Smollett, Fielding, and Sterne, and then compare the manners and customs they depict with those of the present. Read St. Simon and Defoe, and note the progress we have made. Read of the life people led, what they did, thought, ate, suffered, in any age, clime or land, and realize the difference. Then go back further, still further, until in the Maxims of Ani you reach the oldest book of the world, dating from the Fourth Dynasty

of Egypt, about one thousand years before Adam was; and you'll find that human nature at that day was very much the same as we see it at present. We have learned many things, have accomplished astonishing things, and yet the Man and the Woman are unchanged.

Believe in yourself! Pick our a high goal and march straight forward to it. You will find a hundred difficulties in the way. They are put there only to prove your strength—to test your self-confidence. Don't waste your time. Don't scatter your energies; concentrate on the one great object. One by one clear the difficulties out of the way. If you are ignorant—study. If you are awkward—observe and imitate the manners of those who are better trained. Above all, take yourself and your work seriously.—Henry M. Hyde.

ARE YOU A "MATTOID?"

In a recent number of *The Medical Fortnightly*, A. MacDonald proposes the substitution of the term "mattoid" for "crank." If but the doctor would substitute somebody else for the crank he would really do the world a service.

For all that, objectionable as the crank usually is, the world owes much to him. Earth would be a dull place, and there would be little progress among men if everybody believed the same thing, had the same thoughts, and did the same acts. Now and then somebody breaks loose. It is perhaps due to congenital imperfection of development, by which some qualities are much more highly developed than others. Whatever may be the cause, the world probably owes more to such individuals than to all the rest of humanity put together.

One of the points which go to make up the success of youth, in matters warlike, especially, is the uncertainty of what the young man is going to do next. An old general may usually be counted upon to do in any emergency what he has done in similar emergencies previously, but the youngster is unaccountable altogether, consequently he paralyzes his enemy, who does not know what to expect. The same thing may be seen in a game of whist. The luck of the greenhorn is proverbial, but it is largely due to the fact that nobody knows what he is likely to do, and the best players may be puzzled by his "sheer strength and awkwardness." Many attempts have been made to weed out the cranks, the geniuses, the innovators, the men who will not train, but who persist in thinking something different and believing something different and doing something different from what the body of the community does.

France drove out the Huguenots, Spain drove out the Moors and the Protestants. Yet, wherever the Huguenots went, they seem to have carried with them the leaven of progress. The Disraeli's were expelled from Spain, only to rule England. Scarcely a great name illumines a page of history to which the designation of "mattoid," according to Dr. MacDonald's definition, might not with justice be affixed. Nearly three thousand years ago a "mattoid" arose in India, so ridiculous that he left his throne to become a tramp. But that mattoid left a name that still is worshipped by hundreds of millions of men.

On the whole, doesn't the world owe a debt, a great debt, to the men who are "different," who think differently from others, act independently—the "mattoids"?

Withal let us, amid all bickerings pessimistic, remain mindful of the fact that therapeutic trialism, rather than therapeutic nihilism, is responsible for all our drug wonders, as well as drug blunders.—Physicians Drug News.

NEW IDEAS REGARDING PELLAGRA

For some months it has been apparent that the Indian-corn theory as to the causation of pellagra was losing its hold upon the profession. Hundreds of cases have been reported in which there was not the slightest evidence that the patient used or had used corn or its products, in sufficient quantity to cause this disease. Naturally, investigators have been looking about for other explanations. The fact seems to be that the corn theory has "carried" mainly because the eminent criminologist, Lombroso, was sponsor for it.

A few months ago Prof. Sambon, of the Liverpool School of Tropical Medicine, after extensive studies in Italy, where pellagra is most prevalent, advanced the hypothesis that the disease was transmitted by the bite of a peculiar fly, the

similium reptans. American investigators have also found varieties of the similium in America, though, unfortunately for the theory, Dr. L. O. Howard, Chief of the Bureau of Entomology of the United States Department of Agriculture, reports that the similium reptans does not occur in North America south of Greenland. Thus far the Sambon theory, while interesting, has not facts enough behind it to give it much standing.

Two years ago Dr. C. S. Pixley suggested, in *The Charlotte Medical Journal*, December, 1909, that pellagra might be due to the consumption of rancid fats, and submitted a considerable amount of evidence in support of this belief. The Pixley theory has now been supplemented by one presented by Dr. G. C. Mizell of Atlanta, Ga., who advances an elaborate argument (*Atlanta Journal-Record of Medicine*) to show that the disease is caused by the consumption, as food, of what are called "the semidrying oils," of which cottonseed oil, oil of maize and oil of sesame are the most important, the cottonseed oil being the most active of the three.

The peculiar characteristic of these oils is the readiness with which they become oxidized, and the glyceride of linolic acid (linolin) is the constituent of the group which places them in this semidrying class. These oils, when brought into contact with oxidizing agents (presumably inside as well as outside of the body), break down and form a series of volatile acids and aldehyde. When the linolin is oxidized, linolic acid is formed. It is these oxidation products which cause pellagra. The method in which they act, according to Mizell, is as follows:

The linolin is deposited in the tissues "as fat foreign to the human organism." Here it is further oxidized, developing in the process a series of end-products which act "in a deleterious manner upon all the cells and intracellular tissues of the body." It is the breaking down of this foreign fat in the skin which is responsible for the peculiar eruption.

Dr. Mizell submits his clinical experience in support of his theory; in other words, he has succeeded in curing or benefiting many of his cases by putting his ideas into practical application.

First, of course, the "semidrying oils" must be excluded from the diet; next, he gives sulphur, since this substance combines with the linolin and its decomposition products to form nonoxidizable substances —in other words, to prevent the formation of poisonous byproducts. Calcium also being indicated, he gives the sulphur in the form of calcium sulphide. Regarding the action and effects of this remedy, Mizell says:

"Given in doses of one-half to two or more grains three or more times daily it shows its effects in a few hours. In fact, the results are so prompt that I should feel like claiming specific action, without a knowledge of its chemical action. We began the use of calcium sulphide eighteen months ago and have never been disappointed in the results. Under its influence, I have seen the stools reduced to normal, the redness of the tongue fade, the eruption on the hands disappear. The intense burning and pain so prominent in some cases yield readily (usually in less than twenty-four hours). One case, in which the eruption had been continuous for twelve months, although being treated by arsenic, was relieved of suffering in twelve hours, was out of bed in three days, and had no erythema in ten days.

"In all cases, this drug is all that is necessary to relieve aggravated cases of simple pellagra. That it does not relieve all cases is due to the fact that some are complicated by a long-standing gastro-intestinal lesion which antedates the onset of pellagra by a more or less period of time. In these cases, we have a totally distinct condition to treat. Some of these cases were under treatment several years previous to development of pellagra, suffering from various affections of a gastro-intestinal origin, which was probably a predisposing factor in the development of pellagra.

"So, believing that in calcium sulphide we have an agent capable of combating the deleterious action and enabling the organism to rid itself of linolin, we have only to deal with those complicated cases which

need special symptomatic treatment in addition."

We have presented in outline the essentials of the Mizell theory; the paper should of course, be read in its entirety by everyone interested in this important subject. Enough has been said to convince our readers that the theory of Dr. Mizell should be given a thorough clinical test. This we urge you to do. Practically this would mean that you should treat your patients about as follows:

First, withhold from the dietary cottonseed oil, better still, all oils and fats. The meat or lard from hogs which have been fed upon cottonseed meal, and all olive oil (which in these days is practically synonymous with cottonseed oil) should, of course, be prohibited. The diet should be generous, consisting mainly of milk, cereals, vegetables and lean meat. We should not forget Dr. Pixley's suggestion that food deprivation goes hand in hand with pellagra, also his further suggestion of acidity as a factor calling for the administration of alkalis.

Second, clean out the alimentary canal thoroughly, preferably with small doses of calomel followed by laxative salines, then antisepticize the bowels with sulphocarbolates.

Third, give calcium sulphide to saturation by the method prescribed by Dr. Mizell.

Fourth, tone the patient up with the arsenates of iron, quinine and strychnine. Also use any digestive aids which may be indicated.

We trust that many of our readers may try these remedies and report results.

We wish to call special attention to an article upon pellagra by Dr. Pixley, which will be found upon another page.

Josh Billings says: "I don't care how much a man says as long as he puts it in a few words."

THE GOVERNMENT IS DEFEATED

It looks as if a reaction had set in against the extreme in enforcing the Pure Food and Drugs Act. The Government was defeated in its suit against the coca-cola people, and now the Antikamnia Company has successfully defended itself. The Government attempted to compel this Company to state on its labels that antikamnia contained "a derivative of acetanilid." This the Company denied, and on its lables state that the medicine contains no acetanilid.

That odorous corporation, The American Druggist' Syndicate, has also beaten the Government. It was held that peroxide cream was misbranded, because there was too little peroxide in it to be of any real value, beyond the commercial benefit of the title. Justice Vedder ruled: "By no possible construction can the terms of the act be extended to such a boundless field of inquiry as that involved in the accuracy of the remedial effects claimed for a drug." He further ruled that the circular accompanying the package could not be construed as a brand or label.

GERMAN MEASLES

In *The California State Journal of Medicine*, Dr. Edward Gray recently published a paper upon that rarely mentioned affection, German measles. So rarely is this malady discussed in the journals, that a few extracts from Dr. Gray's excellent paper may not be inappropriate.

Dr. Gray, in the epidemic he observed, usually found the temperature of the patient far below that of cases of measles or scarlet-fever; in the milder cases being between 100° and 101° F., in the acute cases not above 103 degrees. One case at the home showed records running up to 109° F. The rash commences near the borders of the maxilla and spreads rapidly downward over the whole body, reaching the feet in twelve to twenty hours. It is never so vivid as in scarlet-fever. It endures from one and a half to three days, reaching its height in one part before appearing in another.

Next in frequency to the eruption, the cardinal symptom is swelling of the postcervical, suboccipital, and inguinal glands. This was present in four-fifths of the cases in the epidemic discussed.

Mild sore throat was present in some instances, but absent in the large majority. Dry cough and bronchitis were conspicuously absent. Swelling and itching of the skin were not often marked. Leukocytosis was not present. The desquamation is bran-like, often scanty, sometimes moderately copious. It often escapes the attention of the physician.

Dr. Gray did not find the diagnosis to present any especial difficulty. The mortality was 5 percent, 3 patients dying, all of ulcerative endocarditis after an illness of seven, of two and one-half, and of one day, respectively. The maximum temperature in these three cases was 109.2°, 106°, and 109.6° F. A fourth death occurred from abscess of the lung, but this was in a patient who was ill before the onset of the malady, this being of mild type.

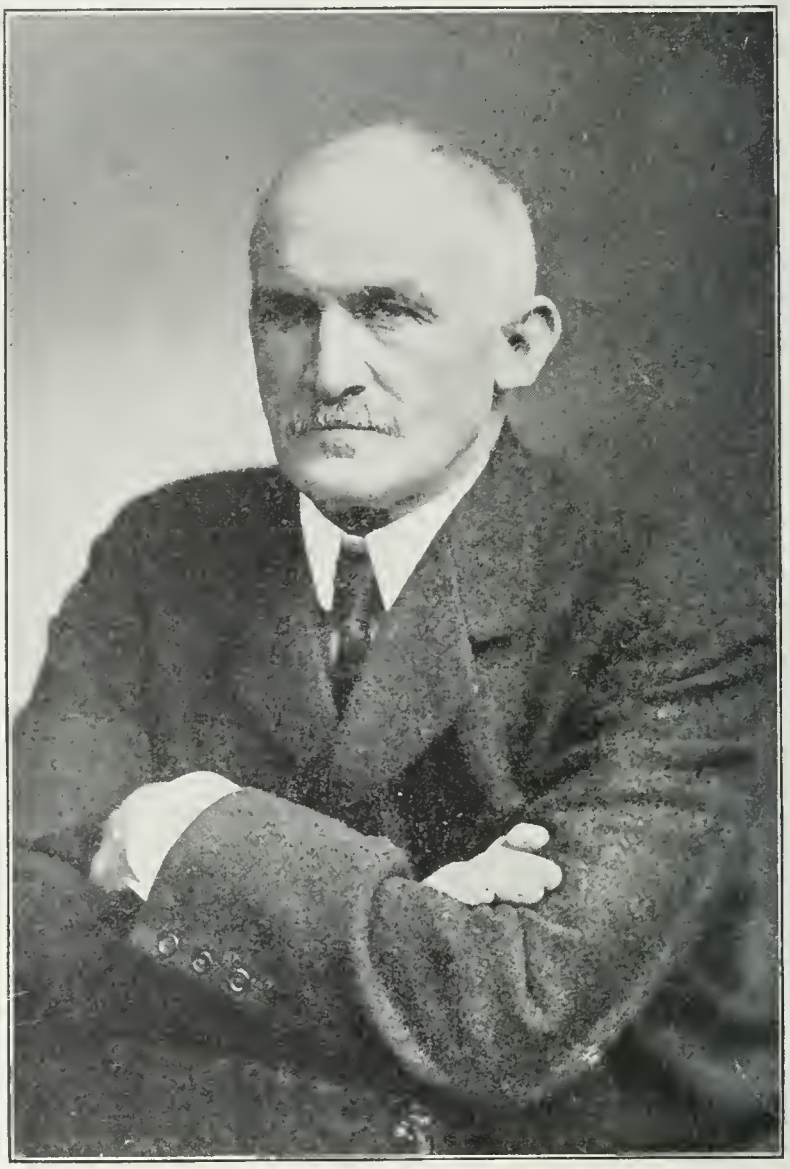
One relapse occurred, or rather a recrudescence of rash and fever, before desquamation was complete. The only sequel was a case of acute nephritis occurring in the third week, and recovering promptly within ten days.

As to the treatment, the mild cases required only confinement to bed, restricted diet, careful watching and calcium sulphide. Severe cases were treated symptomatically. Sponging, tepid baths, strychnine, sparteine, digitalin, and ammonia were used, when called for. The person, clothing and bedding were disinfected, especially near the close of desquamation. Caps and gowns were used by the visiting physicians and nurses, and a disinfecting spray for the shoes and outer garments, with rigid disinfection of the underwear.

ANOTHER MARTYR TO DUTY

One of the latest martyrs to duty in the medical profession was Dr. Joseph Price, former president of The American Medical Association, who died in Philadelphia, June 6.

Dr. Price had been in poor health for about two weeks, but finally, upon earnest solicitation, he arose from his bed to perform an operation for appendicitis upon a little girl. The exertion attendant upon the operation brought his own case to a crisis, and within four hours he was himself stricken with appendicitis and immediately went under the knife. The operation upon the little girl was performed a little after noon; at 4 o'clock of the same day he was himself operated upon, and it was found that he was suffering from an aggravated form of the disease. At 10 o'clock, the same night, he was dead.



The late Dr. Joseph Price

Dr. Price stood very high in the medical profession. Graduating from the Univer-

sity of Pennsylvania in 1877, he rapidly went to the front and became one of the leading surgeons of Philadelphia. It is significant that, with a single exception, he was said to have performed more operations for appendicitis than any other surgeon in his home city.

Dr. Price was a member of many medical societies, and a few years ago received the culminating honor, the one most eagerly sought by physicians, that of president of The American Medical Association.

The earnest physician is ever a slave to duty. Responsibility is a cloak which he can never lay aside. In cold or in heat, in winter or in summer, in daytime or in dark, in sickness or in health, he must always obey its behests, and so it happens that time and time again he takes his life in his hands in order to relieve the suffering or save the lives of others.

Dr. Price was a shining mark, but there are thousands of other physicians who, like him, in their humbler spheres, sooner or later lay down their lives for those whom they serve.

See the city with its flies;
Deadly flies!
What a world of sickness and of death
The word implies!
How they're swarming, swarming, swarming,
In the summer's balmy air;
Every residence they're storming,
On the edibles they're forming,
And they leave death's message there!
With their specks, specks, specks;
Typhoid germs, consumption flecks,
And other dread diseases that most frequently arise
From the flies, flies, flies,
Flies, flies, flies—
From the filthy visitation of the flies.
—Pensacola Journal.

THE FUTURE OF CHRISTIAN SCIENCE

Things are doing in Christian-science circles. Mrs. Eddy is dead. She is as dead as Nebuchadnezzar, and the whole body of "scientists" is groping in the dark. The light which illuminated their paths has been extinguished. It looks as if there might be a coming explosion, and that the body will break into many fragments. Or else history may repeat itself, and we may have a "reincarnation."

The scholar knows how the early Christian world looked with anxious expectation for the fulfilment of the apparent promise of the speedy second coming of Christ, before some of his associates should see death. As the last of his personal disciples approached the extreme limit of possible life, the excitement grew intense. When the last survivor, however, had passed into the grave, it was necessary to devise some new explanation to meet the condition. The legend of the Wandering Jew grew out of this, according to which one of the associates of Christ had not died, but remained to pass through the world, scattering disease and death in his footsteps indefinitely, until his term of penance should have expired, before which the Second Advent would take place.

That something of the sort, or a "reincarnation" of Mrs. Eddy, in the shape of one of the inner circle of that cult, may be contemplated, seems likely. Mrs. Stetson, for instance, is now quoted as objecting to the erection of a monument over the grave of Mary Baker G. Eddy, which would imply that the Christian scientists believe in death, which is contrary to all the Eddy teachings. Every true Christian scientist believes himself, or herself, immortal, and that there is no such thing as death. Mrs. Stetson quotes Mrs. Eddy liberally along these lines, and expresses her implicit belief that the seeress is immortal, and that she surely will reappear, as did Jesus.

Well, if there be truly limits to human credulity, they have not yet been defined; and if at some later date Mrs. Stetson—the excommunicated—asks the faithful to believe that in her own person Mrs. Eddy has become reincarnated, there undoubtedly will be a goodly proportion of them who will accept the claim.

THE PRESIDENT AND THE QUACKS

On June 21, President Taft sent a message to Congress which was the most scathing arraignment of quack cures and patent nostrums which has ever come out of Washington. The President is the first man who has occupied the executive chair to array himself against the nostrum evil.

This message was inspired by the recent decision of the United States Supreme

Court, which held that the Pure Food and Drugs Law does not forbid the knowingly false labeling of nostrums with regard to their curative effects or physical action. In other words, the manufacturer of the worst patent-medicine fraud in the world can boldly claim it to be an unfailing cure for diseases which every physician knows to be incurable, and yet remain unpunished. This decision swings the door wide open to unscrupulous persons, who, under its protection, can prey upon the health of the people without fear of punishment.

The President points this out clearly in the message, in which he urges upon Congress the passage of laws which will prevent fraudulent misrepresentation as to the curative values of the medicines sold to the people.

President Taft is to be commended for the strong position which he has taken upon this subject; he should have, and doubtless will have, the support of every right-minded physician.

SEX INSTRUCTION

In *The Journal of the American Medical Association* for May 20 (page 1497), there appeared a correspondence of Dr. Emil Novak, the General Secretary of The Maryland Society of Social Hygiene, concerning the campaign against the social evil, calling attention to the education of the public as the best and most important means at present at our command for this purpose. Dr. Novak said that The National Institute of Moral Instruction is now preparing an illustrated lecture which will deal in a general way with the subject of sex hygiene, and that Mr. Milton Fairchild, the Director of Instruction of the organization, is engaged in the preparation of this lecture. A letter to Mr. Fairchild brought a most courteous reply, from which we copy the following:

"I am particularly anxious to have information as to what people think ought to go into this lesson, and should be glad to have you make a note of this in your journal. If you do, please use the following as the outline I suggest:

A GENTLEMAN'S TREATMENT OF WOMEN

(The code in vogue among true men)

1. Be continent in youth.
2. Prepare for marriage by purity of mind and body.
3. Realize the ideal marriage.
4. Avoid all immoral relations.
5. Bring up your children healthy, intelligent, and righteous.
6. Always observe courtesy to women.

"The idea is that this can stand as the guide through life."

We are glad to call the attention of the "family" to this very important movement and hope that many will write to Mr. Fairchild, at 507 N. Charles St., Baltimore, Md., expressing their ideas concerning the best subject-matter for the lecture proposed.

This is a subject in which we, as physicians, are most vitally interested, and in which we must live up to the meaning of our title of "Doctor," which means teacher. Until the parents shall be sufficiently educated in these matters to be able to inform their children, it will rest with the medical profession to disseminate the requisite amount of instruction, and this cannot be done unless we ourselves learn what we are to teach.

There is just now a large amount of literature being published on the subject, and we are doing our own share, as can be seen from the papers by Dr. Robinson in CLINICAL MEDICINE. Let us all get together and help in correcting and eliminating the social evil, lest it grow unmanageable and lead to racial destruction.

Scientific arrogance is the mother of ignorance.—Burggraeve.

HABIT-DRUGS AND PROPRIETARIES

A momentous discussion took place at a recent meeting of Philadelphia pharmacists. Resolutions were adopted requesting the revisors of the U. S. Pharmacopeia to omit, wherever possible, from the compound preparations the habit-forming drugs opium, coca and their derivatives; and that such compounds as may be retained shall indicate in their titles the presence of these substances. The discussion showed the general sentiment of the members as against such dangerous preparations.

Dr. H. C. Wood, Jr., read a paper upon "Ethical Proprietaries, and Methods of Their Exploitation." He objected vigorously to the original-package prescription, and cited the case of a doctor who poisoned his own son with such a compound, the presence in which of chloral he had forgotten. Dr. Wood repeated the standard objections against proprietary mixtures, all of which are valid, and ought to prevent any physician making use of these preparations. He failed to go to the root of the difficulty, in not blaming the teachers of therapeutics, like himself, who turn out graduates too ignorant to prescribe singles, let alone make combinations at the bedside, to suit the case.

With all their faults, the much derided manufacturers of proprietaries won the attention of medical men to many valuable drugs, and kept alive the belief in drugs at a time when drug-therapeutics seemed doomed to extinction.

That the day for the proprietary mixture, originating with the drug trade and urged upon the doctor as an easy means of shirking his duty, has passed, is due to the efforts of the active-principle advocates, who have persistently insisted upon a more scientific and particular therapeutics.

In the discussion, Dr. Morgan vigorously attacked the specialists: "It is not the low-class practitioner nor the young physician just out of college who is responsible for the wholesale prescribing of nostrums and proprietary medicines in this city. It is the socalled gilt-edged men who do the greatest evil. They are men supposed to be enlightened, but who are mendacious and avaricious. The alleged specialists in the fashionable sections of the city are the guilty men, and they are by far the worst offenders. . . . The best way to get away from fake cures is for physicians to get back to first principles. Study materia medica and therapeutics."

Professor La Wall said we needed education to elevate the doctor above prescribing these fake cures, and legislation to prevent every Tom, Dick and Harry from going into their manufacture. In many instances the makers of alleged cures know nothing of chemistry or of medicine.

Mr. Apple fell into the old error of advising the boosting of reliable official preparations. This familiarizes doctor and patient with ready-made medicines; the only distinction between these and nonofficials being that the latter are not yet admitted, being newer, and presenting the charm of novelty and the presumption of improvement over the old.

Again we have an exemplification of the evils coming from the separation of pharmacy from medicine. In the mad and ceaseless competition for "business" the tradesman is forced to supply the demand, to sell what people wish to buy. If such a demand is created by unblushing lying and extravagant promises on the part of the patent-medicine faker, in other words, by the astute use of printer's ink, then the drugstores must sell the goods or lose patronage. Yet by becoming a partner in this traffic he has lost much of the respect and support of the medical profession. There will never be an approximation to a settlement of the differences between doctor and druggist, and correction of abuses, until pharmacy is restored to its proper place as an integral department of medicine—until the pharmacist works hand and hand with the physician.

Genuine self-confidence is based on knowledge—knowledge of oneself and one's worth. When you have done a thing once, you can do it again. When you have conquered a difficulty the first time you are always its master. At the end of every day take five minutes to sit down and reckon up your victories. As for your defeats, study them to find out why you lost; and don't make the same mistake twice.—Henry M. Hyde.

SOUTH-SEA DYSENTERIES

Jack London's story, "Adventure," which first appeared serially in the magazine of the same name, has just been run in one of the Chicago dailies. It opens with the picture of a lone white man in the Solomon Islands, with a plantation manned by native cannibals, ready to turn on him the moment he showed evidences of helplessness, but held under control by the white man's power, although he was struggling with the dysentery common to those islands, while slaves died like flies.

Master of the lone plantation, ruling his savage men by sheer pluck and brains, he goes through the crowded improvised hospital, dealing out the remedies at hand, although nothing shows that he has a diploma or is registered as a physician. The necessities of such situations compel men to know something of the simpler remedies and their applications to such maladies as are to be coped with there.

What a pity he did not have at hand a few real remedies—emetine, the sulphocarbolates, atropine, and knew how to use ginger and capsicum. Men who take up such duties ought to take a course in primary medicine, and learn how to treat these dangerous affections with safe and effective remedies. One need not go through a four-years' course to learn a few useful things about medicine.

Endeavor to be patient in bearing with the defects and infirmities of others, of what sort soever they be; for that thyself also hast many failings which must be borne with by others. If thou canst not make thyself such an one as thou wouldest, how canst thou expect to have another in all things to thy liking.—Thomas a Kempis.

LOS ANGELES, 1911

The attendance at the 62nd annual session of The American Medical Association held at Los Angeles, in June, was larger than expected, in the neighborhood of three thousand physicians being recorded as present. While the East was sweltering in the most unusual heat, the weather at Los Angeles was generally delightful.

The scientific sessions were of the usual high order, and much important business was transacted. The address of the president, Dr. John D. Murphy, contained many excellent suggestions, and was well received.

The Association is to be congratulated upon its new president, Dr. Abraham Jacobi of New York, one of the best-known and most highly respected physicians in America. For about sixty years Dr. Jacobi has been engaged in the practice of medicine in America and through all has represented the highest ideals of American medicine. A native of Germany, he participated in the Revolution of '48, and was one of that noble company of expatriates, which included great men like Schurz and Siegel, who found a home and a new fatherland in our midst in the decade before the great War of the Rebellion. Dr. Jacobi is now eighty-one years of age, but in spite of his years he is still engaged in professional work.

Many were doubtless surprised at the changes made among the officers of the Association at this meeting. Dr. George H. Simmons, who has been secretary for many years, was succeeded in that office by Dr. Alexander R. Craig, and Dr. Frank Billings was succeeded as treasurer by Dr. William Allen Pusey. While these changes are in a sense a triumph for the progressive element of the Association, which has demanded that it should be governed in a more democratic way, and that the offices of secretary and editor should be separated, it has been known for some time that a change of this character was contemplated by those actively in control of the management of the Association's affairs. Dr. Craig, formerly an eastern man, has for several months been in *The Journal* office, in training for the position in store for him. Dr. Simmons, it is hardly necessary to add, will retain the position of editor of the Association journal, which is, after all, the one of greatest power and responsibility in the gift of the organization.

It is interesting to examine the official report: There has been a slight loss in membership, the figure now standing at 33,960. The total number receiving *The Journal* of the Association on January 1, 1911, was 54,957.

The treasurer's report shows that the Association had a gross revenue of $450,-305.47; a net revenue of $119,763.98. After making deductions for Association expenditures, loss on the Association "Directory," a depreciation of about $31,000 on the old building, which is not now used, the Association still has a net income of $51,994.17. In other words, in spite of the unstinting way in which the funds of the Association are distributed, for many purposes, it is still a tremendous money maker. Although a large building

has just been erected as the second "permanent" home of the Association, we find that it now has on hand, in cash, in certificates of deposit and invested in bonds, a total of $118,868.47. This is practically ready money. Its real estate, buildings, and plant are now valued at $288,833.66. These figures give some idea of the financial stability of the Association, and possibly may serve to explain its tremendous power.

The American Medical Association is becoming a highly organized socialistic enterprise. Each year it enters some new field. Thus, in addition to *The Journal of the American Medical Association*, it now publishes *The Archives of Internal Medicine*, and *The Journal of Diseases of Children*, and the announcement is made that it will soon begin publishing *The Archives of Surgery*. It was also recommended at this meeting (and this report was adopted), by the Reference Committee on the Reports of Officers, that the publication of a small medical journal be considered by a special committee, also that another committee be appointed to investigate and report at the next annual meeting on the feasibility of publishing a health journal for distribution among the laity.

Apparently our great Association is not quite satisfied with monopolizing the field of the old-established "scientific" journals that have done so much for the profession, such as *The Medical Record* and *The Annals of Surgery;* it wants the earnings of *The Medical World*, and of possibly some of those other "pestiferous" independent magazines of relatively low price.

Nor does this association, apparently, intend to stop there. A. T. McCormick of Kentucky introduced a preamble and resolution, which were referred to The Board of Trustees, to the effect that, since an "unendurable tax" is being levied on the profession by some of the great publishing houses through the many-volumed system of textbooks which are "padded," "often out of date before finished," etc., etc., therefore The Board of Trustees should consider the practicability of asking the various Sections to select authors to prepare, each, a one-volume textbook on the branches to which each Section relates, to be published by the Association and sold at cost.

Since the Association is already in the publishing business, why should it not grab off all the "easy money" being made by the great medical-book publishing houses, such as Saunders or Lea? Doubtless more than enough profit could be made to make good the loss from shrinkage of advertising space in *The Journal*, resulting therefrom. And think of the tremendous additional power of such officialized opinion!

Another important measure introduced by The House of Delegates was the first step in the creation of a relief-fund and the establishment of a physicians' sanatorium.

Any reference to the meeting of the Association, at Los Angeles, which failed to call attention to the hospitality of the profession and people of Los Angeles and the beautiful entertainments provided for the physicians and their families who were in attendance would be lacking. The hospitality of California seems to be well-nigh unbounded.

As usual, Los Angeles was also the place of meeting of many closely associated societies, not the least of these being The American Medical Editors' Association, the banquet of which was easily the most delightful feature of the week. The new president of this Association, succeeding Dr. J. McDonald, Jr., who again assumes the office of secretary and treasurer, is Surgeon General Walter Wyman, of The Public Health and Marine Hospital Service. General Wyman is again the right man in the right place. Success to him in this new office.

CONSISTENCY, THOU ART A JEWEL!

JEWEL NO. 4

The American Medical Association, within the last few years, has embarked in the business of publishing medical journals on a wholesale scale; it now owns three publications, another will be started immediately, while two more are contemplated.

The Association also has ventured, in a modest way, in the book-publishing busi-

ness; at the last session a resolution was passed, urging the Board of Trustees to begin the publication of textbooks to compete with those supplied by the established publishing houses, the authors of these books to be "elected" by the various Sections and thus receive official designation for their work.

The Association is making money. There is more money to be made by supplying the medical profession with the things it needs. Inasmuch as it is already launched as a socialistic and (theoretically) cooperative organization, we would respectfully suggest the following lines of expansion:

The Association should acquire ownership or control of the leading medical colleges of the country, the faculties to be designated by the governing body of the organization.

It should establish and conduct a chain of hospitals and sanatoria in the leading cities and health-resorts of the country, these to be in charge of men of safe and conservative opinions and tractable dispositions.

The publishing interests of the Association should be gradually enlarged until the media for the communication of scientific information to the rank and file of the profession have come substantially within its control.

The profits derived from pharmaceutical manufacturing being reputed to be considerable, and falling (as shown by the reports of The Council on Pharmacy) into unworthy hands, it is quite proper that the Association should prepare itself to supply its members with all the drugs which under its benign despotism the profession will be permitted to administer to their patients. As the number of remedies now officially regarded as worthy is happily decreasing, and expansion in this field has become unethical, the expense of manufacture would be relatively small and the profits accruing to the Association large.

There is widespread complaint among the surgeon-members of the Association of the charges made for surgical apparatus and supplies. This industry certainly falls naturally into our province.

Why, also, should not the Association embark in the automobile business? Our profession is said to be the largest contributor to the acknowledged prosperity of this rapidly growing industry. A car "for the doctor and by the doctor" would supply a real need.

With the rapidly increasing reserve fund of the Association there seems to be no good reason why it should not enter the banking business, lending money to doctors only—of course on good security. The writer could use a thousand or two himself—and might not be averse to paying an extra two percent.

The manufacture of hygienic foods offers an enticing field for expansion. A great organization like our own should interest itself in the great problem of dietetics—and how better can it do this than by supplying the people with those things which they may eat—and interdicting all others.

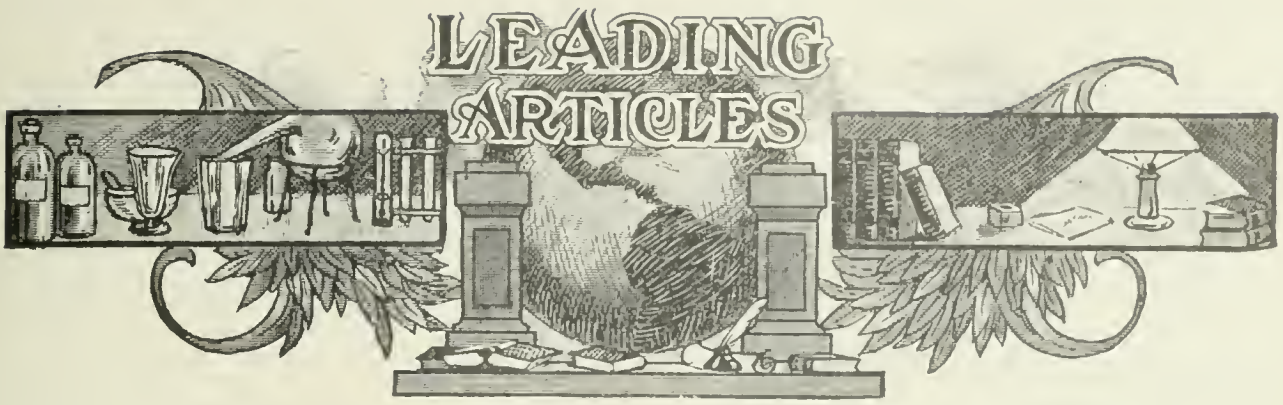
The vista of possibilities for our great organization is an entrancing one, and to enter it means only the taking of another, and still another, step along the road which we have entered upon. The program we have outlined is an entirely consistent one.

Consistency, thou *art* a jewel!

THE HOOKWORM DISEASE IN NORTH CAROLINA

In *The Maryland Medical Journal*, Rankin contributes some further data to his important researches on the prevalence of the hookworm in North Carolina. Examining students in the State colleges, he finds the disease prevalent in every section of the state. The connection with ground-itch, acquired by running barefooted in infected soil, was almost universal. The disease was almost exclusively confined to the whites.

Dr. Rankin attributes to this affection a check of the development, amounting to about twenty-five percent, in the epithelial, muscle and connective-tissue cells. He asks how much more has it affected the more highly specialized and sensitive central nerve-cells? As a direct cause of death it is rare.



The Septic Tank for Household Sewerage

A Practical Means for the Prevention of Typhoid Fever

By BAYARD HOLMES, M. D., Chicago, Illinois

EDITORIAL NOTE.—This paper is a timely one. The best way to prevent typhoid fever is to anticipate its possible appearance in your community or your home by making it impossible for your water or food supply to become contaminated. As a means of prevention the septic tank is something that every physician should be familiar with.

THE need of a higher standard of life is emphasized by the spread of the hookworm disease in the South and the ever-present typhoid in the North. It is left to John D. Rockefeller to call the sleeping masses to wake up to a condition of which most of them never heard before, but that puts nearly two million southern whites out of the labor market. The standard of life of these people is so low that only about one-third of their residences have privies (Public Health Reports, Oct. 1, 1909, No. 40); the remaining two-thirds have no provision for common sanitary decency.

The condition of these poor whites is quite pitiable, but not more pitiable than that of a much greater number of residents in the North, who suffer from the ravages of typhoid in ever-increasing epidemics. (The twelfth census of the United States gives 35,379 deaths from typhoid fever during the census year, or 35.4 per 1000 deaths. Typhoid is a communal filth-disease, of which both guilty and innocent suffer, and it should be exterminated, and it could be, as my readers already know.)

The savage of the olden times lived in the trees, or at least in the woods, and had little need to fear his own excrement; it was one of the least of his enemies. The barbarian nomad left his excrement to dry on the arid plains.

The Difficult Problem of Disposal of Filth

To civilized man the disposal of his excrement marks his rise or fall. At first the household has no provision for defecation. Then decency requires an outhouse. At last self-preservation requires the destruction of the fecal excrement. We are now in the throes of this last stage of development. In the cities of the United States most of the sewerage is dumped into the rivers, the lakes or the sea. Only rarely is any effort made to destroy the sewerage before it is cast abroad. The cities are in about the same position communally as regards their neighbors as are the two-thirds of the residences of the "poor whites" who have no privies.

Superiority of the Septic Tank

Many methods of destroying sewerage have been tried, but none of them has equalled in efficiency, reliability and adaptability the method of the "septic tank." This appellation is an unfortunate one. Septic has an ominous sound. Its associations are all unfriendly and dangerous.

The " septic tank" is a great purifier, liquefier and sterilizer. It is equally well

adapted to take care of the excrement of the city and of the country household, of the permanent population of peaceful countries and the moving armies of those engaged in war.

The fecal discharges of each individual may be considered to be about 300 Grams (10 ounces) per day. They contain about 150 billion bacteria of more than fifty sorts. Only a portion of these are disease producing. A large part of the bacteria are dead. They make up more than half the total mass.

The fecal discharges of man are far less advantageous to the soil as fertilizers than those of the herbivora or of birds. In any large quantity they are unmanageable. The feces, when dried and put on land, become very offensive when wet. If they contain disease-producing life, the moisture and warmth set the disease-carriers loose and make the use of human excreta for gardens very dangerous. The hookworm, typhoid-germ, and some of the tapeworms are thus scattered and taken to new hosts by way of the vegetation on which they are carried to distant tables—on strawberries, radishes, and other greens.

All methods of artificial sewerage destruction that are safe are too expensive to be practical.

The ordinary sewerage from a household of five people consists of 1500 Grams (50 ounces) of fecal matter, 5000 Cc. of urine, and 100 gallons, more or less, of water containing precipitated soap from the bath and much grease and detritus from the kitchen sink. The grease is the least perishable and the most troublesome to dispose of. Unless it is cooled and retained in some large tank near the sink, it collects in the sewer and holds all sorts of detritus with it, and thus stops the drains and puts the whole sewerage system out of commission. Iron air-tight cooling and grease-collecting catch-basins are now procurable, and, placed near the kitchen sink, protect the system. They must be opened and the grease removed two or three times a year, depending on the care of the cook and the size of the catch-basin. All the rest of the sewerage is perishable and happily contains within itself all the elements necessary for its own destruction and purification.

Location and Description of the Fermentation-Tank

The sewerage portion last referred to should be conducted into a water-tight fermentation-tank, which should hold about twice as much as the maximum daily output from the household. It should be not more than one hundred feet distant from the house and connected with it by hermetically sealed pipes of glazed tile or iron. The catch-basin, the fermentation-tank and these pipes should be kept freely open to the air by vents running above the roof or the surface of the ground. The septic tank and all drains should be below the frost-line and wholly unconnected with the gutters from the roof or any other irregular flooding. Another distinct system should take care of the storm water.

The fermentation, or septic, tank should be about 3 feet deep and preferably longer than wide. The sewerage should enter into it at one end and somewhat below the middle of its height, and the exit should be at the opposite end and at about the middle. These pipes should be not less than 4 or more than 6 inches in diameter, and sealed water-tight into the ends of the water-tight buried septic tank. The outlet of the septic tank should rise until it is within a few inches of the top of the tank and then fall as fast as possible toward its outlet.

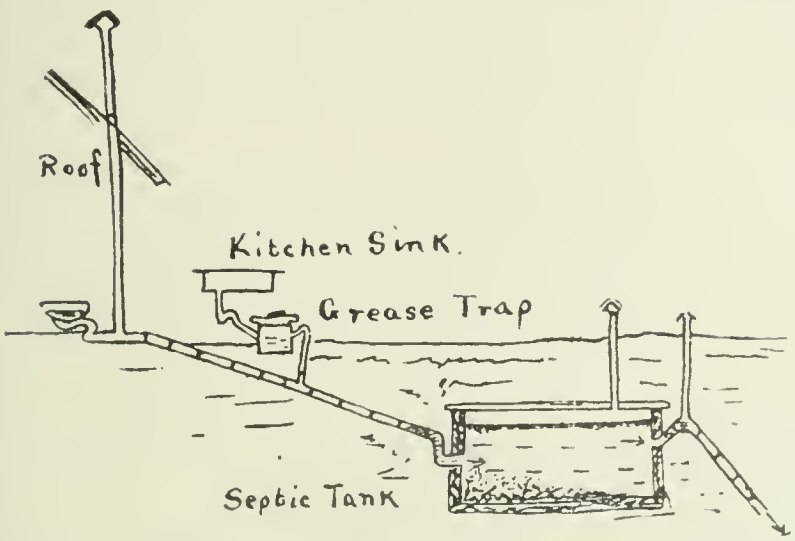
Mode of Action of the Tank

The operation of the septic tank is constant, uniform and automatic. The house sewerage flows in through a 4-inch pipe, and therefore slowly, even when a bathtub is emptied. All the solid material rolls slowly out and sinks to the bottom of the tank at once. The liquids, according to their specific gravity, rise to the top or sink to the bottom. Some of the fluid flows slowly out at the exit at the opposite end of the tank. The contents of the septic tank are never agitated.

The flora of the septic tank soon becomes established. The struggle to exist results in the consumption of almost every particle of solid matter and the production of soluble

inorganic substances. A very thin film of aerobic microorganisms is generally present, and their preservation is attained by keeping the outlet below the surface of the tank.

The sewerage which flows out of the septic tank is slightly turbid water of a specific gravity less than that of urine. It is almost without odor, and it contains few if any living pathogenic microorganisms. It can be discharged into an open ditch



without producing offense and can be collected into a pond which remains perfectly clear, summer and winter. If discharged into a small run or brook, it will not kill the fish nor pollute the stream. It can be discharged into drainage tiles without befouling them or putting them out of service. Or it may be discharged into sandy soil by letting the end of the outlet-pipe open under ground into a hole filled with stone or coarse gravel.

For the village or city the septic tank is equally serviceable. One may be constructed by each individual, but better collectively, one for each block, with a single outlet into the sewer in the street. If Chicago had a septic tank in each block the drainage canal and the Illinois River would run clear.

The institution of a septic tank in the place of every outhouse solves at once the question of soil pollution and contact-infection by flies. The study of the so-called dry closet has put it down as the most dirty and dangerous of all systems.

Suggestion for a Fly-Proof Cloaca

By the use of a modified and simplified septic tank the problem of the hookworm and typhoid can be solved and the nuisance of migrating swarms of flies from outhouse to kitchen, from kitchen to outhouse and back again at each meal, can be obviated.

It is done this way: The privy is moved to a clean place near the house. The seat is torn out and everything made clean. Under the outhouse is set a kerosene- or other barrel, its head even with the surface of the ground. A large rectangular hole in the top of this barrel is surrounded by the four sides of a box rising to a level of 18 inches above the floor of the outhouse. On the top of these four sides of the box is placed the properly shaped stool-seat, with a cover which closes automatically when the seat is not occupied. The remainder of the floor of the privy is completed and the whole outfit made clean and provided with fly-netting.

The barrel is filled two-thirds full of water. A little kerosene is poured on the surface to prevent mosquitoes from hatching. Water may be added to make up any evaporation, but this will hardly be necessary.

In the very coldest weather it becomes a dry closet and the house may need to be banked up or the water salted to prevent freezing and bursting the barrel.

This outfit need cost little more than one dollar for the barrel and the labor of doing away with a fly-breeding nuisance and installing a decent septic-tank-water-closet.

This plan does away with flies and the danger of contact-infection. It is well adapted to bridge over, in the minds of the thrifty farmers, the gulf between a well-warmed and installed water-closet in the house and the abomination which defiles every farm house and village house north of the Ohio and slays by typhoid fever 35,000 people a year, while it makes sick for six weeks at least 200,000 more.

Such an outfit would last out at least two years when water and kerosene are replenished.

In order to make it permanent and adapt it to villages and hookworm regions, a

second barrel should be connected with the first by inch-and-a-half gas-pipe. As the first barrel fills up it overflows into the second. Once a year this second barrel may be charged with superheated steam to the boiling point and then pumped out into a tight conveyor and safely placed on any garden or cultivated field.

In a cold climate and where the soil is sandy and where there is no danger of contaminating wells, the first barrel may be drained, just as proposed for the septic tank, into a pile of buried loose stone, into a drain or even into a pond.

Resume

1. The privy marks the first step from barbarism into civilization; the water-closet marks the next.

2. The connection of the water-closets with street sewers is unnecessary, and direct connection and the pouring out of undestroyed sewerage into the street drain is undesirable and dangerous.

3. The septic tank is an efficient, simple, automatic, and economical method of destroying and rendering house sewerage inert. It is cheap, clean, and its use is the right way to do it.

4. Every house that has a chimney ought to have a water-closet, and every water-closet ought to be connected with a septic tank.

5. The only objection (to make it popular!) to the septic tank is its cheapness, its simplicity, and its perfectly automatic action without the intervention of anything except a uniform flow of sewage.

The Care of the Mouth in Typhoid Fever

By MINNIE LEE CRAWFORD, Henderson, Kentucky

EDITORIAL NOTE.—In the treatment of typhoid fever the physician can learn much from the trained nurse. It is, therefore, with peculiar satisfaction that we present Miss Crawford's paper, which every reader of CLINICAL MEDICINE *will surely enjoy.*

ONCE I was called to nurse a young man in the second week of typhoid fever, and the attending physician said to me: "Miss Crawford, if you will clean that boy's mouth, cure up those cracks and fissures on his tongue and make his breath sweet, he will get well." Then he handed me a marked copy of *The Journal of the American Medical Association*, saying, "Read that." This is the passage I read:

The Mouth an Incubator

"We can easily understand, if we familiarize ourselves with the fundamental principles of bacteriology, that the mouth is an excellent incubator for the development of microorganisms, principally because it contains heat, moisture, and oxygen, the conditions on which they thrive. It is true that many bacteria cannot live in the mouth, on account of the variations of these conditions, but it is equally true that nearly all the pathogenic or death-producing microorganisms find in the mouth an environment which is perfectly suited for their habitation. Miller has isolated more than one hundred different specimens from the mouth."

"Doctor," I commented after looking over the paragraph, "you are above and beyond me, as I have never studied bacteriology, and the statement that I shall have more than one hundred different forms of bacteria to fight is somewhat appalling. However, I shall do all I possibly can for the patient; and if it is a fight between myself and the bacteria for his life, tell me what to do, and with your assistance and the knowledge I have of nursing, I will try my best to help him win out."

I found the patient's tongue and lips parched and fissured, sordes on the teeth, gums bleeding, breath very foul, and owing to these conditions he could hardly open his mouth.

My experience with this case was but a repetition of what I had encountered

in several others, which I had been called into the country to nurse, or where the patient had been brought to the hospital from a private home, these typhoid-fever cases being in the second week.

The Gospel of the Mouth Bath

In my experience in nursing this—one of our most serious of diseases—I have found no single minor duty that will give more satisfaction to the patient than the regular cleansing of the mouth, and I have found "the gospel of the mouth bath" one of the truest that has ever been preached to a nurse.

The value of careful and efficient oral antisepsis as a prophylactic and also as a curative measure should be more widely taught and better appreciated. Besides the refreshing sense of sweetness and coolness following the thorough cleansing of the oral cavity, it seems to have an actual influence upon the stomach. If the mouth is allowed to become foul and coated with decaying remnants of the food partaken, these are swept into the stomach with the next meal and necessarily injure further an already impaired digestion. I know that some claim for the saliva antiseptic properties, but the very fact that the mouth actually contains so many different forms of bacteria goes to prove that, although the saliva may act as an antiseptic to a certain extent, many of these germs escape the destructive action of the saliva or even of the gastric juice, find lodgment in the alimentary tract, and thus aggravate the disease under which the patient is laboring.

If the mouth is kept in as clean a condition as possible, both food and medicine are less objectionable to the patient, and he will have a better appetite and better digestion throughout the course of the disease.

The Mouth Toilet Should Be Delegated to An Experienced Nurse

I have learned that when the patient is very low, it will not do to leave this cleansing to a lay nurse or to some member of the family while the regular trained nurse is off duty. The responsibility is too great, and those people do not, by intuition, know how, it matters not how bright they are and efficient in helping.

Greatest care should always be exercised, for I have known patients to become strangled by less than a little cotton. Where it is possible, this cleansing must go on at regular intervals, even when the patient is delirious.

Shoemaker, in considering the care of the mouth and tongue in typhoid fever, states that "some of the gastrointestinal symptoms may be avoided by strict attention to the toilet of the mouth. The mouth should be cleansed after each feeding, with antiseptic solutions."

I have been called upon to nurse in neglected cases, as this one was, where the patient's temperature was 104° F., the tongue sore and fissured, lips dry and cracked, and there was considerable mental hebetude, when, after a thorough cleansing of the mouth, there would be observed mental improvement, a reduced temperature, and a moist condition of the tongue, signs always favorable to the typhoid patient. To appreciate the wholesome sensation of a clean mouth, we should try the procedure on ourselves.

Serviceable Cleansing Mouth-Washes

In a copy of *The Medical World*, I have found the following:

"For more than ten years it has been one of the essentials of minor detail with me, in the case of any patient with prolonged illness, to use an alkaline solution of sodium bicarbonate, sodium borate, and peppermint oil in water sweetened with honey, as a mouth wash. This makes a most delightful and efficient means to this end.

"Instruct the patient to take a spoonful in his mouth and scrape his tongue on his teeth, or in case he is not physically able to do this, let the nurse pour out a little of the solution in a small saucer or plate, take a toothpick and wrap a little absorbent cotton around it and saturate with solution, then mop the teeth and gums, removing by this process all the detritus embedded between the papillæ of the tongue and gums. Then, if he can, let him finally rinse his mouth and churn the solution

between the teeth. This will be followed by a most refreshing sensation, removing the sticky, pasty feeling, correcting fermentation, preventing decomposition, and removing or limiting infection."

The foregoing does yield a very pleasant lotion; still, numerous patients object to its sweet taste, and, besides, the honey will decompose, while the antiseptic properties are not very pronounced. Hence, I would advise the after-use of some more effective germicide. Thus, boric-acid solution, lemon juice, tincture of myrrh, eucalyptus, thymol, combined with glycerin and alcohol, in various modifications, and diluted with pure water, yield a refreshing preparation, cleansing to the membranes and one that will prevent the tongue and mouth from getting sore.

Formaldehyde solution, when diluted to a degree to prevent irritation, is one of the best. It is penetrating, produces a stimulating effect upon the relaxed tissues, and tones up the mucous membranes.

One physician for whom I have nursed, where the patient is able, always has the mouth rinsed out or swabbed before and after taking nourishment, with a solution of boric acid. He, also, has often had me use a solution of carbolic acid, 5 grains, in 5 ounces of eucalyptol water, applied with a swab of cotton or soft gauze. Often, in the country, where I could not get any antiseptic except carbolic acid, I would dissolve 25 drops of that in 5 ounces of water, macerate a little mint in water, then combine the two, pouring off from the herb as wanted, and using this as a mouth wash. Equal parts of lemon juice, glycerin, and water make a very pleasant wash; the acid juice stimulates the secretion of saliva, the glycerin is soothing, and the combination is grateful in modifying dryness caused by opium or otherwise.

For Sore Lips and Gums

When the lips are chapped or fissures appear, a lubricant of cold-cream or menthol vaseline (5 percent) may be applied. Where the gums are spongy or soft and bleed readily, a few drops of tincture of myrrh added to boiled water will harden them. For decayed teeth or bleeding gums, rub between the lips and around the teeth some powdered boric acid, or a saturated solution of boric acid, alcohol, and water, equal parts, with a few drops of tincture of myrrh added.

Small squares of old linen, soft gauze or cotton (never a brush) should be used for making the applications, and these should always immediately be burned.

In the case of false teeth, remove them, scour with prepared chalk, and cleanse thoroughly with a hard brush, using some antiseptic solution that you know is strong enough to destroy all spores. A solution of 20 grains of carbolic acid in 5 ounces of water will be strong enough for this; or, after brushing, rinse in pure alcohol.

It should be remembered that special attention must be given to the sputum of all patients. Handkerchiefs or wiping-cloths must be soaked at least a whole hour in a regulation solution of lysol or cresol or else boiled in water before being sent to the laundry.

Home-made Collutories Are Satisfactory

In an article on mouth disinfection, A. Wadsworth of New York (in *The Journal of Infectious Diseases*, Oct. 30, 1906) claims that, in a series of practical studies, he has shown that of all the commercial solutions studied, none proved as efficient in inhibiting the pneumococci, under all conditions, as the 30-percent solution of alcohol. He further states that this percentage strength is the strongest that can be comfortably and habitually used in the mouth, and the weakest that will give satisfaction. This being true, it seems rational that the use of alcohol, water, sodium bicarbonate, thymol, boric acid, with some flavoring agent and glycerin (made up fresh), would be far better than the numerous and costly preparations on the market, although the extemporaneous ones may not be as pleasant to the taste.

Of course, where money is no object, it is different; but the most of my nursing since I left the hospital has been among people who often are pinched to buy even the necessaries of life, let alone the pay of the nurse and doctor. Right here I would interpolate that probably many of the

readers of this paper will say that I am "telling them how to practise medicine, and that that is out of a nurse's province." As to this, I may say that in my work I have often been with physicians and have nursed in their families, and many of the doctors had to compound and dispense their own medicines. So, in helping them, I have always found them glad to teach me these matters, and also to appreciate when I could take some of the labor off their hands by helping them to "fix up" their medicines. But that is another matter, and I would better get back to my subject.

Other Practical Details

Every part of the buccal cavity should be cleansed as thoroughly as possible—behind the wisdom-teeth, the roof of the mouth, and under the tongue.

Sometimes the patient is easily nauseated. In such cases, a little lemon juice and water often will be refreshing, and frequently will remove the fur from a thickly coated tongue.

Where sordes and mucus accumulate rapidly, and where the tongue and lips are parched and stiff, attention is needed more often. The mouth should be kept moist, and the same treatment be carried out at intervals throughout the night as during the day.

In children, it will often require a great deal of tact and patience to prevail upon them to allow their mouths being cleansed.

Mouth-breathers require more attention in all fevers. This pernicious habit will cause the membranes of the throat, nose, and also of the tongue to become dry and more difficult to keep clean. The nasal cavities should be syringed or mopped out regularly. For sore nose and mouth-breathing, I have found that an application of menthol vaseline (5 percent) or boric vaseline (10 percent), used on a cotton probang and introduced into each nostril, will heal the inflammatory condition and open the air-passages.

The nurse should be very careful while bathing or cleansing the patient's mouth and not talk with her face directly toward the patient, as in this manner she will risk infection herself—and her own health certainly is always an important consideration. I often use a solution of alcohol, glycerin and lemon juice, with soda, to keep my own mouth clean when out nursing. [Lemon juice and an alkali should not be mixed. Sodium citrate, which is not antiseptic, is formed.—ED.] I have also found a proprietary preparation, "formolid," diluted, and with a few drops of tincture of myrrh added, to be a very satisfactory mouth wash, and prophylactic. [A menthol compound tablet also yields a nice solution for this purpose.—ED.]

The hygiene of the mouth is a most essential study, and the more successful we are in keeping the mouths of our patients clean and sweet, the more successful we shall be with our typhoid-fever patients; and it is a genuine knowledge of personal hygiene that fits nurses for better work.

GOD will not ask from what college you are a graduate, what honorary degrees you have, what scientific discoveries you have made, what medals you have won. He will ask if you have tried to make your work, your profession, your world better. He will ask if you have worked with your brother or against him.—Rock Sleyster.

Alimentation in Enteric Diseases*

One Country Doctor's Methods

By CHARLES S. ALLEN, M. D., Harmony, Arkansas

ENTERIC diseases may be grouped in two classes, namely: (1) Those of children, including acute enteric infection, acute gastroenteritis (or cholera infantum), acute and chronic intestinal indigestion, ileocolitis, typhoid fever, besides a number of others. (2) In adults, we have: typhoid fever, intestinal indigestion, both acute and chronic, together with the various infections, including uncinariasis.

I shall not attempt to prescribe a diet for these various affections, nor give a list of the various formulas and methods of feeding in health, but shall confine myself to the feeding of typhoid-fever patients and those suffering from the enteric diseases incident to childhood, especially during the summer months.

If, in the treatment of typhoid, more attention were paid to the bowel function itself, the condition of the stools by which the perfection or imperfection of digestion can readily be determined, even if less attention were given to medication, the undertaker would be the chief loser. As the bulk of bowel digestion consists in the digestion of fats, common reasoning would teach us that when the bowels are diseased, they are less able to perform their function and therefore demand a diet in which fats are low or absent.

Buttermilk the Best Milk Food

In the well-known pathologic condition of typhoid fever, a food to meet our ideal must be nonirritating if undigested, must be digested principally in the stomach, be concentrated, easily assimilated, and leave only a small residue. In my humble opinion, buttermilk comes nearest meeting these requirements. In addition to being poor in fats, nourishing, concentrated (in so far as the food portion is concerned), nonirritating, and almost completely absorbed, buttermilk, if of good quality, contains myriads of the lactic-acid germs, and may be made so as to include the bacillus bulgaricus, which by many (including myself) is believed to inhibit the growth and propagation of many pathogenic bacteria.

It does not have the disadvantage, so characteristic of sweet milk, of being left over in curds if undigested, nor does it form a so nearly perfect culture medium nor give off so much gas in fermentation, as it is fermented before being ingested.

It also contains a high percentage of water, which is so obviously necessary in typhoid fever to keep the emunctories flushed that the products of destructive metabolism may be excreted.

When properly handled, the acidulous taste is appreciated by the majority of thirsty, fever-parched typhoid patients. The proper quantity can be ascertained only by careful study of the patient and his condition. Some patients readily tolerate one pint every four to six hours, while others cannot exceed six to eight ounces every four to six hours without disturbance of bowel function, manifested by tympanites, foul-smelling stools and diarrhea.

For Those Who Do Not Like Buttermilk

However, all patients do not tolerate buttermilk. For these, it is my custom to prescribe a diet consisting largely of gruels made of rice, oatmeal, barley flour or any of the uncooked cereals, one ounce of the cereal in one pint of water, boiling these for three hours. If toward the end the gruel is too thick for drinking, hot water may be added. The gruel thus prepared is used as a stock. It may be given plain with salt, with sugar, or with both. For purpose of changing the taste, so that the patient may not become intolerant, chicken, squirrel or beef broth may be added—two or three ounces to a pint of gruel. To an adult, ten or twelve ounces may be given

*Read before the Johnson County Medical Society at Clarksville, Ark., February 6, 1911.

every four to six hours—four to five feedings in twenty-four hours.

In the event of abdominal distention, the gruel may be dextrinized. In the few patients who cannot take buttermilk, this diet has proven satisfactory in my hands. [The lactic-acid germs may now be given in tablet form to those who dislike buttermilk.—Ed.]

The Dietitic Treatment in Cases of Intestinal Indigestion

Of the solely enteric diseases, indigestion predominates by far.

In getting the history of our cases, regardless of the nature of the illness, we often learn that the patients have undigested stools. The intestinal equilibrium seems more easily disturbed than that of any other function. This condition of intestinal indigestion is, almost without exception, due to errors in diet, either unsuitable articles of diet being taken habitually, or food being taken in too large quantities or at too short intervals.

The diet in each case is determined by the age of the patient, the character of the stools, nature of the illness (whether a derangement of kidneys, stomach, bowels, etc.), conditions of family as regards finance, intelligence, sanitation, etc.

In breast-fed babies, attacks of intestinal indigestion are rare, and may usually be traced to disease in the mother or, what is a more prolific cause, improper living as to sanitation, baths, daily evacuation of bowels, etc., too violent and persistent exercise, and improper eating.

No doubt all of us have met cases, the history of which revealed the fact that the mother came in from the "cotton patch" and found the baby (entrusted to a slightly older sister's care) vomiting or with an exhausting diarrhea. The only treatment usually required is the correction of the mother's habits, pointing out to her that the present and probably future welfare of her offspring depends on her own physical condition; discontinue nursing for twelve to thirty-six hours, and substitute rice water, quantity to be determined by the character of the discharge, the weight, age and condition of the patient—three to eight ounces every three to six hours being the rule.

The Care of Bottle-fed Babies

In the bottle-fed babies, the outlook is far more serious, as they are usually less amenable to treatment. In these, the most common error is overfeeding, either quantity being too great or too strong a modification of cow's milk being given. Particularly is this liable to be the case at commencement of artificial feeding; children of like ages cannot all be fed alike. Babies of equal health and vigor but of different size and weight require food of equal strength and at equal intervals, but the larger the child, the greater the quantity of food at each feeding required. Thus the quantity of food required for a four-months old, twelve-pound baby will not suffice for a fifteen-pound baby of the same age.

The following rule from a textbook (Kerley's "Treatment of Diseases of Children") has been of great value to me in estimating the proper amount of food at each feeding for a baby of any specified age and weight:

"The average feeding for a fifteen-pound baby at six months is six ounces, and this quantity should be diminished one-half ounce for each pound under this weight until the total quantity reaches four ounces, and one-half ounce should be added for each pound exceeding this weight until the total quantity reaches nine ounces."

The digestive capacity of every child is diminished during illness, the extent of diminution being in inverse ratio to the age of the child and direct with the severity of the illness. This is more noticeable in the gastroenteric diseases.

A child with fever is apt to be thirsty and to take more food than in health, the bad results of which are obvious. This is frequently so in summer diarrhea. In order to avoid this, I not only order the milk fed from the bottle to be diluted, but instruct the mother of the breast-fed child to give the baby a drink of water before and between nursings and to allow only one-half to two-thirds the time for each nursing that is usually consumed.

This, in a general way, is my method of feeding. Taking each specific condition separately, the diet as prescribed by us is as follows:

Typhoid Fever: Buttermilk in varying quantities and at intervals suited to digestive capacity of the patient, as interpreted from the character and odor of the stools and condition of bowels with respect to tympanites and meteorism.

Acute Intestinal Indigestion: In breast-fed children discontinue nursing, and give barley or rice water, after the following formula, in quantities and at intervals suited to age, weight and condition of the patient:

Rice, one tablespoonful; water, one pint. Boil three hours and replace loss by evaporation. Or use Robinson's barley flour, three tablespoonfuls, prepared under the same general directions as for rice.

If these are not assimilated, as evidenced by green-colored, sour-smelling stools, continuation of diarrhea and gaseous distention, they may be dextrinized, changing the starch to dextrinized maltose, which is readily assimilable.

In the bottle-fed child, the same gruel referred to above is substituted for the usual modification of cow's milk until the stools lose their abnormal color, consistency, and odor, when skim-milk may be added gradually until the gruel is again replaced by the artificial food to which the baby is accustomed.

In the chronic forms of the above, it may be necessary to alternate the gruels and cereal waters with pancreatinized milk.

Acute gastritis and acute gastric indigestion (though not enteric diseases) are in the same line for dietetic treatment. After twelve or twenty-four hours' abstinence from food and probably a stomach washing, small quantities of water by mouth, reinforced by normal salt enemas, gradually succeeded by small quantities of weak foods, such as whey, weak tea, chicken broth or barley water, given cold, as cold foods, are usually retained better than when hot.

Acute gastroenteric infection, gastroenteritis, or cholera infantum: These we find, usually, as a secondary infection, following one of the above-mentioned conditions. All food is withdrawn, and replaced by stimulants, as brandy, strychnine, etc., until collapse and vomiting are prevented and controlled; then teaspoonful doses of plain water, barley water, granum or rice water may be given at fifteen-minute intervals and increased in strength and quantity as the conditions improve.

When the temperature has been normal for two or three days and the stools improve to such a degree that freer feeding is thought of, unusual care is necessary in order to avoid reinfection. It is of course our object to resume milk feeding as early as possible, but the amounts given must be increased very gradually, giving from one-fourth to one-half ounce skim-milk with every second gruel feeding.

When There Is Reinfection

Even these small quantities sometimes result in a rise of temperature and a return to diarrhea, indicating reinfection, promoted by the favorable culture-medium furnished by the undigested milk. It would probably be safer to substitute buttermilk, made with a reliable culture of bacillus bulgaricus, for the skim-milk mentioned above. I have not so far tried this method.

Such a reinfection, because of the bacteria taking on renewed activity, may result in an illness exceeding the first in severity. Under such conditions, we are fortunate indeed if a neighbor is near who can act as a wetnurse to take the place of the mother whose source of nourishment has failed from long disuse. This lacking, we are, to use a slang phrase, "up against it."

The animal broths are of little service: they contain but little nourishment even if given in large quantities, and exert a laxative effect on the already inflamed mucosa. Their only use is in giving small quantities—an ounce or two—added to the gruel, to make it more palatable. It is under such conditions that dextrinizing and pancreatinizing processes are of considerable service. They may enable the debilitated mucous membrane lining the

bowels to absorb much-needed nourishment, by changing the starch into more soluble and more easily assimilable maltose.

In ileocolitis, acute or chronic mucous colitis, and in intestinal catarrh, little modification of the above regimen is required.

The whole may be summed up as follows: Careful watching of bowel function; carefully considering age, weight, and vigor of the patient, and the local condition of the bowels, as they bear directly upon the capacity of the intestinal digestion.

With these suggestions, carefully revised to suit the varying conditions in each individual case, conscientiously carried out and backed up by the intelligent use of drugs, with a view to correcting certain specific clinical conditions, we may hope to come up to the average or even exceed the general average of recoveries in enteric disease.

The Hydrotherapeutic Management of Typhoid Fever

As Applied in the Hospital and the Home

By WILLIAM LEE SECOR, M. D., Kerrville, Texas

Formerly Professor of Therapeutics, Chicago College of Medicine and Surgery; Physician in Charge of the Kerrville Sanitarium and Hospital

THE issue of CLINICAL MEDICINE for September, 1910, contained two articles on the treatment of typhoid fever in which I was greatly interested because they considered the subject from the standpoint of drug medication, though gave very little place to hydrotherapeutic measures.

For several years I spent three hours a week lecturing upon medicinal and non-medicinal therapeutics and it was my endeavor to give each its proper importance.

In most of the acute diseases drugs are of first importance, but physical methods are often of the very greatest assistance in the management of the case, while in chronic conditions physical therapy will give the most universal satisfaction, supported by proper drug medication.

Drug therapy and physical therapy are not antagonistic, as some seem to think, but should go hand in hand. Neither is complete in itself but a proper combination gives us our most perfect system of therapeutics. Active-principle medication to "dose enough," fortified, when need be, by physical methods, will give results that are little dreamed of by many.

In 1889 Dr. Simon Baruch of New York City introduced into this country the method of Brand, of Germany, of treating typhoid fever with cold water. This method had given excellent results in the German army, and its efficiency in combating typhoid fever was soon proven by a number of investigators in this country.

In the New York and Philadelphia hospitals where the method of Brand has been carried out to the letter most gratifying results have been noted, the whole typhoid picture has been changed and the mortality brought down to as low as 7 or even 5 percent.

A number of physicians, lacking a knowledge of the true therapeutic value of the Brand bath and deeming the lowering of temperature the one thing essential, so modified the procedure as to do away with the constant friction. This not only spoiled the therapeutic value of the bath, but made it a dangerous agent, and I doubt not that more than one life has been sacrificed by it.

The Brand bath has been established in most of our leading hospitals as the method of greatest efficacy. Its greatest weakness as a universal method in the management of typhoid fever lies in the fact that in most homes and in general practice it is out of the question.

In our eastern hospitals the method of application is about as follows:

A full-sized bath-tub is wheeled to the bedside of the patient. The tub is partly filled with water at 65° to 70° F., and the patient carefully lifted into it. The water should cover the whole body up to the chin, care being taken to prevent the shoulders from becoming uncovered. The patient's hair is then thoroughly wetted and a towel saturated with ice water is wrapped about the head. The attendants, one or two on either side of the tub, now apply vigorous yet superficial friction to all surfaces that can be reached, except the lower part of the abdomen. This rubbing must be kept up during the entire time the patient is in the bath, which is from fifteen to twenty minutes. The cold towel on the head should be changed frequently or displaced by an ice-cap, as the head must be kept cool.

When the bath is completed, the patient is carefully lifted from the tub and placed on a drying sheet which has been spread over the bed, first protected with a rubber sheet. The drying sheet is then wrapped about the patient and he is dried without friction. The rubber and the drying sheets are now removed, and the patient then is covered lightly.

Many make it a routine practice to give a stimulant before and after the bath. Brand advocates alcohol, and this practice is followed by Dr. J. C. Wilson of Philadelphia, and by others. Baruch has found that strong black coffee serves him better.

In order to be able to understand the efficiency of the Brand bath, we must understand the physiologic action involved in its operation.

Mode of Action of the Procedure Explained

When a patient is placed in the cold water of the Brand bath, the surface vessels are instantly contracted and the blood is driven to the deeper-lying structures. (If this condition is allowed to continue unduly, the visceral congestion may become harmful.) As soon as the body touches the cold water, a nerve impulse goes to the thermogenic centers, conveying the impression that the body is cold, whereupon the thermogenic centers become active and heat production is increased.

We can see from this that an ordinary cold full bath is not the indicated treatment for typhoid fever: the resulting visceral congestion and increased heat production would contraindicate it. On the other hand, if as soon as the patient is placed in the cold water vigorous, superficial friction is produced and kept up continuously while the patient is in the bath, the whole aspect of the case is changed; there is reaction, the superficial vessels become dilated and bring the heated blood of the deep-lying tissues to the surface, where in contact with the cold water it is cooled, increasing heat elimination; the impression received by the thermogenic centers, during the time friction is produced, causes a decreased heat production.

This increased heat elimination and decreased heat production are valuable, but they are not the essential elements in the Brand bath that make it so efficient. Rather, it is the stimulation of the vital centers, resulting in a marked increase in the elimination of toxins, from which the great benefit is derived. Frequently the temperature of the patient returns to the same level that it held before the bath, but this is no sign that the bath has not been productive of good; for the urine and other excretions will show a marked increase in toxicity and the vitality of the patient will be increased.

The bath should be given so as to favor reaction, for reaction is the essential element in the treatment.

Outline of Hospital Management of Typhoidal Patients

The outline for the management of typhoid fever given to the resident physicians of the Jefferson and the Philadelphia hospitals by Dr. J. C. Wilson is about as follows:

General Management.—Prevent further ingestion of bacteria. Put to bed as early as possible. Provide plenty of fresh air. Give plenty of fluids to drink. Change position in bed—do not keep on back. Liquid diet, at definite times, in definite quantity.

Specific Treatment of Enteric Fever.—Brand bath whenever temperature reaches

102.2° F. per rectum. One-half ounce of whisky before and after bath. In bath fifteen minutes.

While the Brand bath is all right for the well-equipped hospital or sanitarium, it is out of the question in general practice. To be of the greatest value, a hydriatic procedure must be of such a nature that it can be employed at any time and in any place.

Cold sponging, ice rubbing, and various other measures have been employed with more or less success, but I have found that the cold towel rub, applied as described below, is by far the most efficient measure to be substituted for the Brand bath; in fact, I think it is a superior procedure either in hospital or home.

The Cold Towel Rub as a Substitute

A pail containing several quarts of ice water, several Turkish towels, and an ice-cap are the materials best suited to the procedure, but the treatment is very elastic and can be given in the poorest hovel or in the army tent with such materials as are at hand.

The patient, lying on his back, has the ice-cap or cold cloths placed upon his head, first wetting the hair thoroughly, as dry hair is a good nonconductor. Then a dry Turkish towel is spread out under the right arm, parallel to the body; another Turkish towel is wet in the ice water and wrung out until it does not drip, and this is quickly wrapped around the right arm and hand; then light friction is made beneath the towel by the hands of the operator—*not* by the towel upon the skin of the patient. Then the wet towel is removed and the arm wrapped in the dry one and dried *without friction*. The left arm, chest, abdomen, legs, and back are treated in the same manner, one after the other.

The great advantages of this procedure are that it may be applied anywhere by unskilled attendants after brief instruction and that it is capable of the greatest range of severity. It may be applied with warmer water and be made very mild for feeble patients, or it may be applied with ice water, the towel left pretty wet, and applied several times to each part before drying, which is a most heroic treatment suitable only for robust subjects.

Brief Outline of the Author's Management of Typhoid Fever

The following is an outline for the management of typhoid fever that I have used with good results and have taught to several hundred medical students who are now physicians. My own observations and the reports that I get from the field lead me to believe that it is a very satisfactory plan to follow.

1. Place patient in bed as soon as possible in quiet, well-ventilated room. Wet hair and keep continuous cold on the head; this relieves headache, and tends to prevent falling of the hair.

2. Cool rectal irrigation two or three times per day, continuing for from fifteen to twenty minutes.

3. Glass of orange juice every three hours, and lemonade with little or no sugar, *ad libitum*.

4. Diet: gruel, thin at first, of gluten meal (20 or 40 percent), made without milk; later barley and oatmeal may also be used.

5. Hands of attendants, feces and urine should be disinfected.

Mode of Giving and Benefits of Cold Rectal Irrigations

In regard to the cool rectal irrigation, I would say that this is one of the most positive methods and I believe the most valuable method at our command of combating hyperpyrexia. Aside from the cleansing of the lower bowel, its influence upon the circulatory and nervous systems is most profound.

We know what a powerful agent for good hot rectal applications are in the case of shock, etc., how thereby the vital centers are stimulated to renewed action and the organs resume their proper function. Very hot and very cold applications have about the same effect in stimulating the reflex-centers, so that from our cold rectal irrigation, we not only get cleansing of the lower bowel, marked lowering of body-temperature, but we also get what the reaction of the Brand bath produces, stimula-

tion of the vital centers and increased elimination of toxins.

I use a glass or metal two-way rectal irrigator and keep up a continuous flow for fifteen or twenty minutes. If we make the application for a shorter time, it tends to increase intestinal peristalsis, but usually by five or ten minutes this tendency is passed.

I have on several occasions of severe hyperpyrexia used ice water with apparently most gratifying results, but usually water at 60° to 70° F. is all that is necessary. After it is employed two or three times the patients enjoy it, often going to sleep under its quieting effect. The patient lies on the side in the Sims position and is put to no inconvenience, as the water is carried off by a rubber tube and no bedpan is needed.

The Question of Food and Drink

Laboratory experiment seems to show that the juice of oranges and lemons inhibits the growth of typhoid bacilli. Whether or not this be true, these citrus-fruit juices are refrigerant and apparently beneficial when taken in goodly quantity, while usually being very gratifying to the patient.

It is upon the nervous system that typhoid fever works its greatest harm—the nerves are starved and poisoned by the toxins, and so the diet should be rich in nerve-building material. I have found gluten of wheat to answer this purpose nicely; nuclein also is most excellent for this condition. If the patient is fed on gluten gruel, made without milk from either 20- or 40-percent gluten meal (as manufactured by the Sanitarium Food Company, of Battle Creek, Mich., or the Sanitarium Food Company, of Nashville, Tenn.), all of the requirements of a typhoid-fever diet will be met and many of the nervous symptoms be avoided.

As to the Value of Drugs

While I do not believe that drugs are indispensable, nevertheless I do believe that benefit may be obtained from sulphocarbolate disinfection of the intestines, and so I employ this substance. I am also of the opinion that echinacea may be of some value, even in the face of the report that it is practically inert. (I know of other drugs that are apparently inert when used on dogs or healthy humans, but which surely give results when used upon the sick where they are indicated.)

I know that in a series of cases where these drugs were given in conjunction with the foregoing treatment, I had a higher percentage of abortive cases and rapid recoveries than is the rule.

I see no excuse for using aconite, veratrum or the antipyretic coaltar products in typhoid fever, if it is at all possible to employ hydrotherapy. Digitalis is usually of little value when there is high fever. The ice-bag over the heart will give exact digitalis results. Strychnine may be needed as an emergency remedy, but its continuous use is certainly harmful, for it stimulates the nerve-centers already irritated by the toxins. I can see no call for the use of whisky, believing it does more harm than good; for our most careful researchers show that its *apparent* stimulating effect is produced by paralyzing the inhibitory centers, which would not be advisable in typhoid fever. I object to "liquid peptonoids", upon the same grounds, as the preparation contains about 17 percent of alcohol, while other articles of diet are better.

If the patient is seen in the first week of the disease, I give an initial calomel purge; and if the bowels do not move freely each day, I use the warm enema, adding soap, and in case of tympanites, oil of turpentine.

The picture of the typhoid-fever case treated by hydrotherapy is usually very different from that presented where drug therapy alone is used, and I think it is the duty of every physician to spend such time, money and brain-power as is necessary to give him a good working knowledge of this important branch of therapeutics.

[Every doctor should be familiar with and employ the indicated hydrotherapeutic measures in typhoid fever, when he can. Of their value, there can be no doubt. Unfortunately they can be used safely and with the assurance of benefit only

when an intelligent nurse is in charge or the patient is in some well-equipped institution. When these conditions are present the results obtained are certainly excellent, though we should, even then, use the sulphocarbolates in every case, and other medicinal agents as indicated.

Dr. Secor is not as enthusiastic over the intestinal-antiseptic method as we are. We have seen results following the use of these agents which give us "the faith that is in us"—and our own experience has been duplicated by thousands of others. The method is simple, can be carried into operation anywhere, at any time, by any intelligent physician, and it "delivers the goods." There are many readers of CLINICAL MEDICINE who will support us in this statement—ED.]

The Treatment of Typhoid Fever

With Special Reference to the Use of Intestinal Antiseptics

By WILLIAM F. WAUGH, A. M., M. D., Chicago, Illinois
Dean and Professor of Therapeutics, Bennett Medical College

EDITORIAL NOTE.—Any method of treatment which fails to take into consideration the use and value of the intestinal antiseptics in typhoid fever is wofully defective. Their importance is properly accentuated in the paper of Dr. Waugh, whose experience of many years with remedies of this class makes him easily a master in their use. We urge everyone to read this article carefully.

FOR thirty-two years I have used and advocated the principle of intestinal antisepsis in the treatment of typhoid fever, with such success as amply to justify me both in its use and its advocacy. If my name should be remembered a few years after my death (which does not now seem as important to me as it did thirty-two years ago), it will probably be for my advocacy of this principle. It has been difficult for me to find anything new to say today, on this topic, because I have already said it so many times. But there is a new brood of doctors every year, and in deference to them I shall say it again.

Some of the Premonitory Symptoms

There are certain symptoms of typhoid fever that appear long before a Widal test is possible, and their recognition is vital, for then is the time when treatment is most valuable. The patient begins to feel badly, although not ill; he feels causelessly weak, especially just after meals, when his belly distends and he is inclined to lie down, a tendency to sweating also appearing. He tries to walk or work his feelings off, but becomes fatigued on slight exertion. His sleep is curiously disturbed, dreams commencing before he is unconscious. His bones ache as he lies on them and he keeps turning to get a moment's relief. Slight nose bleeding may occur; there is a little bronchopharyngeal irritation causing cough; headache, paresthesiæ, anorexia, bowel irritation with diarrhea (increased by laxatives) or constipation, soreness or distress in the abdomen, and always fetid stools, begin to obtrude themselves.

Intestinal Disinfection Is the Thing

Whether these betoken real typhoid fever or an infection by some other of the typhoid-group germs, is immaterial as to treatment, for the same indication presents itself. Empty the bowels completely, best by giving one centigram of calomel every half hour for seven doses, and following with a double teaspoonful of saline laxative, repeated if the action is not sufficient.

Meanwhile be giving the patient a full sufficiency of the sulphocarbolates, either 5 grains of the zinc or 10 grains of the soda salt, or the combination in the W-A intestinal antiseptic tablets, every one, two or three hours until the stools are freed from

all abnormal odor. After that, one-half or one-third the daily dose suffices to keep up the effect. It is no use to try to disinfect a bowel that contains solid masses of feces, which no chemic agent can possibly penetrate.

The only way to regulate the dose is by noting its effects and increasing until what you want is accomplished. I never found a top limit for the sulphocarbolates—they are not toxic if pure, but the commercial varieties generally disagree with the stomach in any but insufficient doses. So there you have it; if you want to get the full remedial action you have to specify the chemically pure salts; or else you use the others and conclude that my recommendation was not well founded.

The lesson is useful, that is, when you really do empty and disinfect the bowels and then note the change in the patient's condition. The fever has fallen some, the bowel symptoms have subsided, and so have the nervous phenomena—headache, backache and bone-ache, nervousness, delirium at night, smokiness of mind, and so on. I have calculated that in any febrile attack this one therapeutic measure reduces the sum total of the symptom-complex about one-third. Try it, and see for yourselves. You ought to be able to manage any such case easily after such a reduction has been effected.

Many who read my advice see good in it, but prefer their own methods and choice of remedies. This is but natural. I think the first sensation a doctor experiences when any other proposes a treatment is, "I have something of my own, and must assert myself." So one says, he accepts the antiseptic idea, but he uses salol; another is fond of chlorine water, or one of the naphthols, or the Woodbridge tablets, or benzoate, or calomel—which latter many consider a good antiseptic. I, myself, think it is; but I have never been able to get as good results from anything else as from the sulphocarbolates; and after investigating many reports from advocates of other antiseptics, I firmly believe they are due to the fact that doctors are too easily satisfied and do not realize how much better results they can secure by using the sulphocarbolates, when they are chemically pure and are given in sufficient dosage, after thoroughly cleaning out the patient. That sounds egotistic—there are thirty-years' experiences back of it.

When the choleraic storm is past and we have to deal with its effects in the shape of enterocolitis, I like a little bismuth subnitrate, with a very little codeine, to check excited peristalsis.

Food and Invironment

Diet: Clear meat soups, white of raw egg, pure freshly pressed fruit juices, Candler's beloved barley water, or rice, oat or toast water. Give either one of these foods exclusively for one week, then another for a week, and so on in rotation—starve the remaining microbes out by such changes of pabulum before they get used to one particular kind.

Small hot enemas give relief if the malady is dysenteric. Hot applications over the abdomen give much comfort. Plenty of pure cool water throughout. Very small doses of saline laxative or rhubarb to keep the fecal poison from collecting and irritating the inflamed bowel.

Some day a genius will arise to point out that our wealthy patrons do not have to live in superheated homes in the city—not even in that hotbed, Philadelphia—during the heated season. Just as they have furnaces to supply hot air in summer, so they could have tanks full of ice to diffuse cool air when desirable. Why not? It would be cheaper than a visit to summer resorts, and cooler. Allow ten tons of ice for the summer and compare its cost.

The Doer Wiser Than the Theorizer

A few years ago we heard the objection against this intestinal-antiseptic idea that the alimentary canal could not be rendered aseptic by any chemic agent. This cry has subsided. The clinical trial of the method showed that it did what was desired, and against such an argument the theoretic objections do not hold. There are two sorts of folk—the kind that demonstrate that a thing can't be done, and the other, who go ahead and do it. The "doers" have won out here.

The earlier this treatment is instituted, the better the results. Many cases taken early are so completely dissipated that it is a question as to whether they were really typhoids. What matter? Look on every such patient as if he were your own child, and you will prefer to use the remedies that stop the malady at the start, rather than wait till it is so fully developed that you can not stop it—the ability to make a complete diagnosis and classify the case is a poor consolation. A real doctor will learn to sense such cases before he can diagnose them.

Suppose there is a threatened riot—one capable man jumps in and by a wise move stops it before it gets going. Another waits till property has been destroyed and calls out the troops to shoot down the rioters. Which does best? The diagnostician may truthfully say, there was no riot. He may even assert that there would have been none, that the men were "merely fooling." *Quien sabe?*

The Relation of Intestinal Autointoxication to Mental Diseases

By CARL W. SAWYER, B. S., M. D., Marion, Ohio
Neurologist of the C. E. Sawyer Sanitarium

AT one time or another, by someone, the gastrointestinal tract has been blamed for nearly every disease and symptom from which mankind suffers. It was only natural, then, that when the awakening came about mental diseases that this channel should be credited with being the cause of a large amount of the trouble. Especially was this plausible when the most cursory examination showed that a disturbed intestinal tract and a disturbed brain were nearly always associated.

Closer observation soon showed, however, that, while these two systems were conjointly disturbed, they did not always bear the same relation to one another. It was soon noticed that they varied in their precedence and that the autointoxication caused numerous and diverse symptoms both in the brain and other parts of the nervous system.

While, despite the close scientific work that has been done, but few positive facts can be presented, clinical experience indicates some very marked and dependable conclusions.

Mental Derangement and Constipation

No one, for instance, will deny the fact that all persons mentally deranged show aggravated symptoms when their bowels become constipated. If they are depressed, the gloom will become greater; if they are maniacal, the excitement will invariably increase.

A few days ago there was brought to us a young man suffering from a marked hebephrenic type of dementia præcox. Even a muffled room could not exclude his screaming and talking. Just twenty minutes after the voidance of a copious high enema he was quiet and asleep. And he has remained comparatively quiet ever since, excepting when his bowels have become constipated, at which times he has been very noisy. A jeweler suffering from a socalled incurable senile dementia became so melancholy that he threatened his own life. A vigorous course of enemas along with massage and regular living, and he was healthier and more robust than for years. And so on, the cases could continue endlessly, showing that mental disorders are aggravated by intestinal autointoxication.

Symptoms Indicating Autointoxication

Another set of facts proving the same statement is the condition of the majority of the mental cases coming under treatment. Practically all of them present several of the following symptoms:

1. Muddy skin; sometimes making them look as yellow as Chinamen or as dark as mulattoes.

2. Sickening sweet breath; so offensive that a whiff of it will nauseate the examiner. This breath should not be confused with the bromide breath—it is sweeter and more nauseating than that; nor with the tonsil and foul-mouth breath—it does not resemble decaying material as that one does. It is more like the acetone breath, only sweeter.

3. Indicanuria. We have been surprised, time after time, at the tremendous amounts of indican our mental patients pour out in their urine. And we have also learned that many clearing spells can be prognosticated long in advance of the clearance by observing the density of this reaction.

4. Impacted Colon. Every mental patient should undergo a thorough abdominal examination. I have been able to demonstrate, many times, to my assistants the exact course of the colon by palpating this hard, sausage-shaped mass in the relaxed abdomen. (And, by the way, a relaxed abdominal wall is a serious handicap to improvement in a mental case.) In many instances this mass is so perfect that almost the entire course of the organ from the ileocecal opening to the anus can be made out.

5. Packed Rectum. It is truly wonderful the condition the rectal contents may attain. In most cases, especially where they have been kept under opiates, the examining finger feels much as though it had been thrust into a gravel bank. Scybala so hard that they ring like stones when they strike on a solid object, so dense that they can only be crushed with a hammer, and so offensive that they can scarcely be worked with are found in large numbers.

Of course all the patients do not have all of these symptoms of intestinal incompetency, but in every instance where several of these are found their subsidence marks the subsidence of many of the general and mental symptoms.

Mental Disease Rarely Caused Fundamentally by Toxemia

We do not wish it to be inferred from what has just been said that we believe that mental diseases are caused by intestinal autointoxication, because we do not. It is, however, the cause of many of the symptoms in mental diseases, although seldom, if ever, the sole cause of the disease itself. Of course, sporadic cases can be cited where a free catharsis has brought a complete cure; but it is doubtful whether the individual really suffered from a true mental disease. Then, too, the case might not have been followed sufficiently long to be able to report a complete cure.

A few weeks ago a school-girl was brought to us for treatment. She was screaming, singing, restless and sleepless. She showed all the above signs of autointoxication. Three days of catharsis changed her into a mild-mannered, shy, quiet young lady. It seemed that a complete cure had been effected. We asked her to continue under observation and now find that she is becoming restless and nervous again, similar to her former attack but less marked. The autointoxication was the cause of her symptoms but not of her disease.

Sources of Error

One of the common sources of error in treating patients of this kind is to ask them or their attendants whether their bowels are moving daily, and then to be satisfied when they answer in the affirmative.

The normal stool varies from 60 to 250 Grams in weight, and from one to four evacuations daily to four to seven in a week. This amount can be varied readily and in no sense of the word can it be used to base serious conclusions upon. Consequently, the mere fact that the bowels have moved ought not to be sufficient evidence that autointoxication does not exist.

Some time ago we investigated carefully the subject of the amount of the stool in mental cases and found that, although a patient under observation was having a daily evacuation, he still had a very marked impaction of the colon.

Anatomically, the colon is built like a series of balloons opening into one another. It is not a straight tube with straight sides. There are numerous pockets all along it in which fecal material may collect. The hepatic, splenic and sigmoid flexures may

likewise expand so as to hold excessive quantities of old excrement. Besides, in many mental cases with relaxed abdominal walls the transverse colon has made a deep loop which is filled with hard fecal material.

Bit by bit all these cavities are filled until the patient is holding a large quantity of fecal material from which he is absorbing deleterious substances into his body, yet at the same time is having an evacuation from the bowels every day. The main hall is open but the adjoining rooms are polluted. A teaspoonful of material retained daily will soon fill all the colonic cavities, and the shrewdest observer of the excreted stool will not be able to detect the loss of a teaspoonful from the usual amount.

Again, the fecal material may collect along the sides of the colon much as lime scale collects on a water-pipe, leaving an open but ever-decreasing channel in the middle. After days of active purgation I have washed away from demented patients material curved in shape, hard and covered with blood, pus and mucus on the convex side, everything showing that the material had not only collected on the colon-wall but that it had eroded and ulcerated the mucous membrane as well.

The Rectum May be the Seat of Trouble

In other cases the rectum itself may be the offending member. Just above the lower sphincter is a space which normally feels very small, a little larger than the index-finger. In many cases of impaction (especially in women) this enlarges to the size of a fist or more, and a large mass of hard fecal material will collect in such a fashion as to act as a ball in a ball-and-socket valve. Each day the ball will rise slightly, allowing a small amount of material to come through but not permitting the rectum or sigmoid or colon to clear itself. I had suspected this condition for some time, but only recently was able to demonstrate it beyond a doubt.

A maniacal woman seized a large diamond ring from her sister-in-law and before she could be stopped swallowed it. It being inadvisable to give the patient an emetic, the stools were ordered watched and the patient allowed to go on as before. A few days after the occurrence she returned to her home for a visit, joined in the Christmas festivities and returned to the sanatorium for treatment. During her absence she had had a stool every day and seemed to be in as good condition as usual.

Eight days after the ring was swallowed a radiogram of the abdomen was taken soon after noon. The negative showed a doubtful shadow low down in the pelvis. The two following mornings the patient had evacuations as usual. Thirty-six hours after the first negative was taken a second one was made. This also showed a shadow low down in the pelvis. I then inserted my finger into the patient's rectum and found it greatly dilated and occupied by a round solid mass nearly as large as a base ball. This I crushed with some difficulty and found the ring in its center.

Now, this patient had traveled nearly 600 miles by train, had had a bowel movement every day, and for two days that we know of positively this ring lay within two inches of the rectal outlet and did not pass out in two fairly good-sized movements which the patient had had. This hard fecal ball, forming a perfect valve, only lets a small portion of the fecal material pass out.

Other Treatment Needed

While none of these patients presenting the symptoms of autointoxication were cured by cleaning out the bowel alone (all needed other treatment, massage, baths, and the like), none were ever cured unless this was done, and several relapsed because they failed to follow instructions regarding these matters after they left the institution.

It would take too long to detail all the facts that experience has taught in regard to colonic constipation. Suffice it to say that the doctor who attempts to treat the mentally diseased, without arranging thoroughly and continuously to evacuate the bowel, will not succeed.

This brings us to the best method of accomplishing the result desired. Since, as we have said, the colon is mostly at fault in these cases, our measures must be

directed to that organ. Therapeutically speaking, these cases can be divided into two classes: those that can be helped by drugs and those that can not.

Many persons have fallen into the habit of self-medication. They know nothing about drugs but consider them all alike and take anything which their druggist offers them. Then, too, a number of doctors pass out to their patients anything in the way of a laxative that is handy, never stopping to consider whether it is indicated or not. There is just as much intelligence shown in the administering of cathartics as in any other class of drugs.

With us, the best results are obtained by a mixture of four forces: (1) Enemas. (2) Abdominal massage. (3) Physical-culture exercises. (4) Electricity. Diet cannot be depended upon, because most of the mentally deranged will not eat regularly, masticate properly or partake of any definite set of dishes.

Value of Enemas

In all our cases enemas take the first place. More than once we have turned a maniac into a quiet subject by merely emptying the lower bowel with water.

We always use a metal sigmoid-tube, and pass it in for its full length, 9 to 12 inches. Although myself and my assistants have given several thousand of these treatments, we have never had any bad results nor has a single patient, no matter how violent, been injured. Nearly always two quarts of water are used at one sitting. If the fecal material is badly collected, the attendant introduces two fingers into the rectum and while the water is running gently crushes the harder and larger particles and washes them out. Another attendant then kneads the abdomen and gradually works the colon empty. This is repeated daily until the movements are coming away soft and of good color and odor.

Methylene-blue is used in the water, as a general rule. In some cases salt replaces it, while occasionally glycerin and magnesium sulphate are injected. If the material that comes away is very bloody, olive oil impregnated with aqueous calendula is allowed to remain in the colon after it has been flushed out.

Massage, Electricity, Etc.

The abdominal massage is carried on by a skilled operator and is given so as to empty the colon and strengthen the abdominal muscles.

The chief aim of the physical culture is to strengthen the abdominal muscles. It usually cannot be employed until late, as the majority of mental patients will not go through the movements properly while disturbed. We use a set of fifteen exercises: five lying down, five sitting up, and five standing. They are all given in the presence of the instructor and are added to as she deems best.

Both sinusoidal and faradic electricity are used over the abdomen at regular intervals. Most of the patients object at first, but if made to undergo it a few times, they usually acquiesce and take treatment quietly. Other measures are used to treat the case generally. The ones here outlined are for the intestinal difficulty solely.

Conclusions

After the patients have regained their normal mental balance and have returned to their homes, occasional doses of intestinal antiseptics and laxatives are advised, and they are cautioned about not permitting themselves to become constipated again, for we believe that:

1. All persons who are mentally deranged are aggravated by intestinal autointoxication.
2. Sooner or later nearly all mentally deranged patients show a set of symptoms which speak for autointoxication.
3. Intestinal autointoxication is not (excepting in a few instances) the cause of the mental derangement but rather the cause of some of its symptoms.
4. One must not believe that because the patient is having a daily stool he is not suffering from intestinal autointoxication.
5. The best method for overcoming the autointoxication is to unpack the rectum and colon by repeated copious enemas followed by abdominal massage, physical-culture movements, and electricity.

6. Lastly, that mental diseases could, to a large extent, be averted by carefully keeping the bowels open at all times so as to stop intestinal autointoxication.

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[May we be pardoned for referring again to the value of the kerosene-oil enema in cases of impaction of the lower bowel. Again and again have we known it to cause breaking down of the fecal mass, and the passage of stools which in quantity and odor were simply unthinkable. Supplementing this procedure, the use of the measures advised by Dr. Sawyer, with carefully selected remedial agents, to tone up the bowel musculature and insure regular action, have prevented a recurrence of the trouble.—Ed.]

Mistakes

III. Gastralgia or Indigestion?

By CURRAN POPE, M. D., Louisville, Kentucky

Ex-Professor of Physiotherapy, University of Louisville; Medical Superintendent of the Pope Sanitarium; Member of the American Medical Association, etc.

EDITORIAL NOTE.—This paper is part of a series of articles upon the common mistakes made in practice. They emphasize the necessity for the utmost care in diagnosis, and show how much such care may contribute to clinical success. Every physician should read them carefully.

SEVERAL years ago a young man entered my office and began the statement of his case by saying that he had made the "rounds" of the best doctors in town, having had the fortune, or misfortune, of seeing ten before I was consulted. He said that he had suffered for about a year from what every doctor called "indigestion." He complained of considerable oppression and distention about an hour after meals, with the presence of gas, occasional palpitation of the heart, extreme nervousness, and dull frontal headache. His faith in the medical profession had been considerably shaken, and his first request was that I give him no medicine, as he had practically lost faith in the power of drugs.

From the anamnesis thus presented, I confess that the case appeared to me in the same light as that of my professional brethren, and, upon careful questioning, I elicited a number of subordinate symptoms, all of which pointed toward his so-called "indigestion." I feel certain that there are few physicians who would not have said that these symptoms certainly indicated a derangement of the digestive organs and more particularly of the stomach.

A Clear Anamnesis Not Sufficient

But is the detailing of symptoms and a clear anamnesis enough? I answer most emphatically, no.

In his peregrination from medico to medico, the man stated, he had never been subjected to a physical examination beyond the examination of his tongue and the feeling of his pulse. To me this seemed curious, indeed, for I believe that no physician should be content without a careful physical examination of each and every patient that comes to him, and when I say thorough, I want to put an accent upon and capitalize this word.

When subjected to a careful examination, a flood of light was at once thrown upon this man's condition.

The lungs were normal, there was good expansion and splendid respiratory murmur. The heart showed an endocarditis, a mitral murmur, and evident myocardial weakness. His blood was markedly anemic, and the fresh specimen contained many microcytes and poikilocytes. The urine

yielded quite a little surprise. It was highly acid, contained a trace of albumin, some granular casts, renal epithelium, and a few pus-cells; in fact, a condition that the French very aptly call "*petite Brights.*"

The Heart to Blame, Not the Stomach

As is my custom, I told the patient frankly what the trouble was, and that I believed the kidney mischief and the so-called "indigestion" to be dependent upon the condition of the heart and circulation. He was exceedingly frightened, which was decidedly an advantage in his case, for he had really been a somewhat headstrong and disobedient patient, disregarding the directions of former medical advisers.

I insisted upon a prolonged course of treatment, absolutely and rigidly followed; to which he gladly and promptly acceded. His hygienic life was straightened out. Alcohol, tobacco, coffee and the other toxic substances were discarded, and proper diet was prescribed, particularly limiting meats. As much rest as possible also was to be taken.

He was placed at first on a course of massage and static electricity, and in a reasonable length of time these measures benefited the cardiac condition, relieving the heart by a *vis-a-fronte* action and at the same time clearing the urine of a number of its abnormal contents. Each day a few of the resistive exercises were given; and, as his case progressed, he was placed upon the Nauheim, or carbonic-acid, bath.

In a medicinal way, he was given digestives for their temporary influence upon the gastric condition; tincture of digitalis (fat free) as a cardiac tonic, and sodoxylin as an eliminant.

It was pleasant to note the slow but steady increase of strength, flesh, and general improvement. The "*petite Brights*" disappeared; the hemoglobin increased markedly, as did the digestive power and the circulation, under the use of these most excellent physical and medicinal measures. A careful and persistent course of treatment extending over a period of six months restored him to complete health, activity and usefulness.

This was indeed a case where indigestion was not indigestion. And there are many others of the same kind.

Personal Hygiene in Camp Life

By CHARLES S. MOODY, M. D., Sandpoint, Idaho
Major and Surgeon, National Guard, State of Idaho

EDITORIAL NOTE.—Here is a "story" which every physician should read who contemplates an open-air vacation—and who does not? Also, he should give it to any of his patients or friends who are going to the big woods to camp, fish or hunt, and urge them to read it. There's health and long life in the out-of-doors, but there's also danger, as Dr. Moody shows us. This interesting article tells the way of safety joined with satisfaction.

THE soldier marching across a country and the hunter climbing mountains in quest of game are somewhat analogous in that both are subject to practically the same physical conditions. Military experts recognize the fact that the efficiency of an army depends upon the comfort and well-being of each individual in that army. An army composed of tired, hungry, footsore troops is more easily defeated than one well fed, fresh, and in good marching condition. So it is with the huntsman. He is but poorly fitted to pit his skill against the protective instinct of his game if he chance to be suffering from so slight a matter as an excoriated ankle or an angry chafe, either one constantly reminding him in no uncertain terms of its presence.

The personal hygiene of the enlisted man in our army has been reduced to a science. Today the American soldier can march further with less discomfort than one of any other civilized nation, unless it be

the German. He is also less likely to become ill. Statistics show that we have less men on sick-report per thousand than any other nation. This is not due so much to the physical makeup of the men themselves, as it is to the rigid enforcement of a set of rules regarding the personal habits and personal care of the men.

The civilian who spends a few weeks or months every year in the wild where his habits must approximate somewhat those of aboriginal man may be able to glean something from a consideration of the rules laid down for the conduct of the soldier and then apply the knowledge to his own case.

It goes without saying that the health of the individual man depends not upon his camp mates, but upon himself individually. So far as the hygiene of the camp is concerned, that depends upon the personnel of the men composing the camp. A filthy camp destroys the pleasure of an outing, what though the topography be ideal and the location and climatic conditions leave nothing to be desired. It should be the aim of every man who goes camping to see that the surroundings are kept in a perfectly sanitary condition.

Art of Camping Must be Learned by Experience

There are a great many men who penetrate the wild without the slightest conception of what they shall find there, and with such absurd notions with regard to dress, food, and sleep, that their distress, when actually confronted with conditions, would be laughable were there not an element of the tragic in it.

Successful and comfortable enjoyment of an outing is an art learned best by experience. I had very nearly said "only" by experience, and I am inclined to believe that is true. At the same time, the novice may learn much from those who, to use a westernism, "have been through the mill." Taken in hygienic doses, there is nothing more enjoyable than a sojourn in the hills beneath canvass. Taken as I have known it to be on occasions, an outing may become a torture more fiendish than it is possible to express.

In this article I shall confine my remarks to the man who is unskilled in taking care of himself in the woods or on the water. The seasoned old outer may cease right here, for there will be nothing in this to interest him, nothing that will increase his store of knowledge.

The matters herein suggested will be considered from the standpoint of the soldier. I shall attempt to instruct exactly as I should a company of raw recruits struggling with their first enlistment—variations in dress and a few other minor things, of course, excepted. At times my remarks may appear dictatorial and dogmatic—that is the prerogative of the military surgeon.

The Question of Clothing in Camping Out

How shall the man about to enter upon camp-life clothe himself? Methinks I see a smile of superior knowledge bespread itself over the countenance of my reader.

"Why, my dear doctor," I hear him say, "I *know* how to clothe myself."

"You do? Then you have, in a few brief years, learned a lesson that has occupied the attention of military experts for all ages."

Permit me to doubt whether one man in every hundred who go into the hills knows how to clothe himself. The very fact that the matter of personal habiliment seems trivial and unimportant accounts for the actual freaks one sees unloading from the train bound campward, and accounts, too, for the actual misery these same persons experience when they set foot on mountain trail.

It is quite evident that the character of the clothing should be adapted to the climate visited by the person wearing it. It is obvious that the same weight of garment worn in Alaska would hardly be suited for a sojourn in the tropics.

In choosing garments, the chief points to be considered are, heat conduction, absorption, permeability, and, lastly, durability.

What to Wear in Cold Regions

Pure wool is a poor conductor of heat and, hence, protects the wearer against cold. It does not attract heat, neither does

it dissipate heat, but rather conserves it. It is, therefore, the most suitable material for cold climates. By cold climates I do not refer entirely to the extreme north. The climate of practically any mountain region is sufficiently cold to warrant the wearing of woolens all the year round. Unless waterproofed (a very simple matter), wool absorbs water very readily. This hygroscopic quality makes it the material *par excellence* for undergarments. The chief difficulty is in washing, which, however, may be overcome somewhat by rubbing and wringing the garment in luke-warm water, and avoiding the use of hot water.

Poorly made and ill-fitting garments are a source of annoyance at home and become doubly so in a camp where at any moment one may be called upon to perform considerable manual labor. Underclothes should preferably be in one piece and so made as to fit without wrinkles or folds. They should not fit too close, but be loose enough to permit free movement of the body. If two-piece garments are worn it should be seen to that there are no folds.

The tendency is to wear the overshirt too snug. The military rule of four inches in excess of the chest measurement is a good one. The collar should be wide and permit freedom of the neck, not interfering with circulation. Color and weight are matters of individual choice. The heavy navy-blue for cold and the lighter olive-drab for warmer climates leave little to be desired. For some very good reason, the "river-hogs" of the West wear red exclusively. The man who consults his health and comfort will carry at least two complete suits of underwear with him into the hills. This is also true of overshirts. When he returns from the trout-stream or the deer trail he will have a fresh suit to replace the soiled one.

In the matter of outer garments, there may be considerable latitude for personal adornment. For the Northwest, I have found the Mackinaw garments superior. The Mackinaw jacket should be cut somewhat Norfolk and at least six inches larger than the chest, and sufficiently long to protect the knees in damp weather or when traversing wet grass or undergrowth. A wide collar that may be turned up for a hood or, what is better, a parka is a valuable addition to the garment. The trousers should be cut ample in the legs and terminate at the knee, where they may be fastened with a strap and buckle or three buttons. I am aware this savors somewhat of our British cousins, but inadvertently our British cousins have stumbled on a good thing in knee-pants. If you insist upon wearing full-length trousers, by all means let them be slit up the outside. Retain your trousers in place with a belt instead of suspenders.

Next to Mackinaw for cold climates comes corduroy. Unfortunately, there is corduroy and—corduroy. Some of the stuff sold for corduroy is a base imitation. In damp weather it stretches out of all semblance to a garment and when drying gives off an odor like unto a damp collie. Again our English cousins come to our relief and manufacture a corduroy that wears like iron, does not lose its shape, no matter what wetting it may get, and may be depended upon to hold its color in any climate.

The Colors Best Suited for Hunters' Garments

While my experience in torrid climates has been but limited, it would seem to me that what is known as Hong Kong khaki should supply the nearly perfect garment. It is light, cool, nearly impervious to water, and easily washed. The color of outer garments may now be considered. As is well known, the darker the color, the greater the heat absorption. Black absorbs the greatest, white the least amount of heat. Garments often are devised, in respect to color, to render them inconspicuous in the woods while hunting. Observation has taught me that wild animals have comparatively little color-sense. They do not depend so much upon sight as upon hearing and smell, to protect them from their enemies. I have killed as many deer while garbed in a bright-red Mackinaw suit as when clothed in less conspicuous colors. If I have any preference for color in garments, it is for brown or dark-gray—brown first.

The Hunter's Footwear

The subject of footwear is one that has been given much attention. The sporting-goods market is filled with shoes and boots designed for hunters. It is a pretty safe wager that the designers of nine-tenths of them never were further into the wilds than a trolley car would carry them. Experience has proven the high-leg boot for sportsmen to be an unmitigated nuisance without one redeeming feature. It is hot, uncomfortable, heavy, unsanitary, not to mention several other attributes that would not sound well in print. A boot of this character looks well on dress parade, with its bright-yellow complexion and white laces, but when tried, it sadly falls short.

Another peculiar fallacy is with regard to the weight of a boot or shoe. We have been taught that footwear for walking purposes should have a heavy, stiff sole. No such thing. What, in the name of reason, is the need of lugging around eight pounds of leather when four or less will answer the purpose? A medium-weight leather with a firm oak-tanned sole, not stiff as an oak board, but with some degree of resiliency about it, will bring a man in at night, after a long tramp, with considerably less leg weariness than one of those monstrosities that have the weight of an "Oregon boot" and make a man feel as though he were a convict. The North American Indian is the most tireless pedestrian in the world, and he wears moccasins. Next to him in endurance comes the Canadian courier with his shoepacs. Both of these have flexible soles. In my tramps about the western mountains I have abandoned stiff-soled shoes entirely and confine myself to moose-hide shoepacs.

Next to the choice of leather and construction of footwear comes the fit of the same. Indeed, the fit may take precedence over all other conditions. The man who is tramping in poorly fitting shoes has my sincere sympathy; he is laying up for himself misery untold. Before entering upon a protracted march, the medical officer in the army inspects the feet of every man in his command. No soldier is permitted to leave garrison unless his shoes are in perfect adjustment. A shoe that is too loose is worse than one the reverse. The tight shoe will stretch; so will the loose one, thus rendering a bad matter worse. The shoe should fit snugly in every part, neither binding the foot in places, nor allowing the foot to "slosh" around in it. It should "feel just right." You would far better go upon your tramp wearing the shoes you wore at birth than a pair that hurt your feet when you pull them on in the morning.

One word with regard to waterproof leather. With all our Yankee inventive genius, we have never been able to concoct a mixture that will effectually keep out water. Do not be misled by the dealer who leans confidentially over the counter and assures you that "these shoes are guaranteed absolutely waterproof." Various preparations are upon the market for dressing shoes, all of them good, and all effective when used freely. But to be effective, they must be used every day in damp weather. When you come in at night, remove your boots and partly dry them before the fire, then set them aside where they can dry entirely in a warm atmosphere. When dry, work the dressing into them thoroughly, add a top-coat and set away. If a leather boot *could* be rendered perfectly waterproof, it would be about as comfortable as a rubber boot, and if you want to know how comfortable that is, draw on a pair some day and take a stroll of three or four miles.

As much of foot comfort depends upon the hose as upon any other thing. Medium-weight half-hose of wool, or merino, are preferable to either silk or cotton, although a light silk hose worn next the foot with a woolen hose over it makes a very good combination. The lower limb, that is, between the ankle and the knee, should be protected by a heavy golf stocking. Leggins or puttees I do not favor.

Protection for the Abdomen

Before quitting the subject of dress, I must call your attention to the abdominal band. This article of apparel gained some prominence during our late war with Spain, and it has since become an integral part of the soldier's equipment in the tropics.

It may be worn with benefit by all who live in camp, irrespective of climate.

This abdominal band is composed of knitted wool or silk and is continuous, fitting the lower part of the abdomen like a stocking, being worn next the skin. Those of our troops in the tropics who resort to the band are singularly free from intestinal disorders, while those who do not are prone to them. So prophylactic are these garments against cholera and allied diseases that our soldiers call them "cholera bands." I have personally extended their use to all classes of society as well as to small children, and results have been most gratifying.

Last summer I had occasion to use these bands in a small mining town where the children and many of the adults were suffering from what amounted practically to an epidemic of dysentery. Those of my patrons who could be induced to wear the band escaped almost without exception, while those who refused (as was the case with many of the Finnish people) were almost universally attacked. Let me suggest that you try it on your next hunting trip.

Sleeping Appurtenances, and Rest

A man's bed is as much a part of himself as his shirt, and in camp it often reflects him more. I can tell what manner of soldier a man is merely by examining his bed. If he is slovenly and careless, his bed will reflect it quicker than any other part of his equipment. So can I tell the tyro in camp-life by simply taking a glance at his sleeping arrangements. A man *can* sleep, when half-dead from fatigue, upon nearly any makeshift. But the man who expects to enjoy his outing to its fullest extent and be able to withstand the vicissitudes incident to a life out of doors must rest comfortably at night. He must "knit up the raveled sleeve of care" by sound and refreshing sleep if he hopes to track the grizzly to his lair or outwit the blacktail on the mountain pass. There is an erroneous impression abroad that a man camping is "roughing it." The man who goes out with that idea is surely bound to rough it before he gets back.

Attention to a few details insures rest; rest insures steady nerves; and steady nerves insure success (if you point the gun right) on the hunting trail.

The trapper's bed of boughs is all very poetical, but somewhat difficult to construct. It requires considerable skill so to build a bough bed that it will not feel as though you were reposing your frame on a congress of cobblestones. An improperly placed bough has a tendency to work its way out and gouge into some particularly sensitive portion of your anatomy, and turn and twist as you may, that perverse chunk of vegetation follows you with the remorselessness of Fate. In the interior, far from your means of transportation, a bough bed may be made to serve—for lack of something better.

The Trapper's Bough Bed

Put in some hours in constructing it if you expect it to yield any comfort. A few boughs hastily thrown together will not serve. Collect a heap of boughs about the size of a small cottage. The pile may look big, but you will need them all. Cut four poles, about six inches in diameter, somewhat longer than you intend your bed to be; place these upon the ground in the form of a quadrangle and retain them in place by driving stakes. Begin with the larger branches, preferably of balsam, and lay them with the curve up, as you might lay shingles on a house. Be sure that none of the larger ends are left sticking up. Over these place at least four inches of a smaller growth, taking the same care with regard to their disposition. These may be of white cedar or yellow pine. Over this lay a four-inch stratum of fern that has been allowed to wilt in the sun.

Your bed is now ready for the bedding—a tarpaulin or rubber blanket. For covering, my choice is the olive-drab blanket of the army or the heavy woolen product of the Hudson Bay Company. Three of these will keep a man comfortable in practically any weather. Where weight in transportation is an item, a man can get along very well with only two.

Perchance your outing is to be in a country where transportation facilities are

good; if so, a canvas cot is sanitary and comfortable; next, a sailor's hammock. Do not allow yourself to be induced to buy a sleeping pocket or any of the freaks that have been devised in the past few years. These things may be all right in Siberia or northern Alaska, but they are sadly out of place in a temperate climate.

Personal Hygiene and Care of the Feet

The care of the body while in camp is an item of great import. If one would avoid "colds" and other minor ailments that have a tendency to afflict one, frequent bathing is necessary. Far too many people imagine that to camp out successfully and enjoyably one must dispense with all the little refinements of life. Far from it. The application of water to the body, if necessary in civilized life, is far more so in camp-life, where the body has an added accumulation of extraneous matter.

I have never been an ardent advocate of the cold bath. The mountain waters of the West are far too chilly for health or even comfort, the shock to the system being too great. Water at 50 degrees furnishes sufficient reaction; colder, the shock becomes depressant. If there chance to be a lagoon or bayou near, where the still water is warmed by the sun, this may serve for the morning dip, but failing this, the water should be slightly warmed and a sponge-bath taken.

Proper care of the feet constitutes the *most* important thing in the hunter's life. The man who suffers from his feet is an object of pity. His enjoyment is turned into grief, and his value as a hunting companion is destroyed.

What has been said with regard to the selection of footwear will, if followed, do much to obviate foot ills, but not all. Corns, bunions, and ingrown toe-nails should be looked after by a competent chiropodist before starting out. If I cared to pray for some one thing to defeat an army, I should petition to have each individual soldier cursed with an industrious crop of corns.

Excoriations on the balls of the feet and prominent parts of the ankles can be obviated entirely. Properly fitting shoes minimize the trouble but do not entirely remove it. Each pedestrian should carry with him a small roll of zinc-oxide adhesive plaster, and upon the very first intimation of a rubbed place he should apply a strip of it over the part. If a blister has already formed, do not prick it at all; or if not more than merely a small opening in the most dependent portion so as to allow the serum to escape, then cover the blister with the adhesive plaster.

Toe-nails, if they have a tendency to grow inward, should be trimmed square across, and not rounding as is usually done.

Corns between the toes can be relieved by adhesive plaster or by inserting a small pledget of sterilized cotton.

If on a long tramp the feet become tender, then, when you sit down to rest, remove the shoes and wipe the feet with a damp cloth, taking good care to remove all perspiration from between the toes. Do not soak the feet, for thereby you loosen up the epidermis and render it all the more liable to chafe. The application of a solution of potassium permanganate (1 : 500), at night, will do much toward hardening the skin, while it also kills off the germ-life that causes such an unpleasant odor. This causes the skin to turn brown, but that is of little consequence where comfort is concerned.

A powder consisting of zinc oxide and talc sifted into the shoes makes a valuable foot dressing, especially in warm weather. For chafing between the toes, nothing does so well as powdered tannic acid applied on a pledget of cotton.

The Hallowed Tallowed Shoe

Previously I spoke of the difficulty of rendering leather watertight. The "river-hogs" of the West, before starting on the "drive" in the morning, pour their shoes full of melted tallow. These men often stand in the ice-cold water all day without the slightest inconvenience. I first tried this plan when fishing in the swift western streams. I found that my feet remained comfortable all day and did not become tender from the action of the water. Afterward, I tried it on my annual hunting trips into the mountains, primarily with the

idea of keeping out the snow water, but later, because I found that my feet stood the effort better. If you are looking for something cosmetic and "nice," don't you try it; if, on the other hand, you are out for comfort, the scheme is worth trying.

Chafing is a rather troublesome complaint in warm weather. It can be relieved by frequent bathing, to remove the acrid sweat, applying antiseptic talc powder after thorough drying.

The Dentist Before the Trip

Care of the teeth should engage the attention of every man going into the hills where dentists are not. This lesson was impressed upon me last summer very forcibly. I spent fourteen days on the headwaters of the Coeur d' Alene suffering untold agony from an ulcerated tooth. I never before looked upon a dentist as being especially blessed, but that one certainly was when I sank into his torture chair upon my return from the hunt.

The Blight of the Sunlight

Bright sunlight, more especially if shining upon the water, often has a bad effect upon the eyes, while "snow-blindness" is a common difficulty with those who are compelled to face the sun on the snow.

Bathing the eyes in a solution of common salt will often relieve the resulting inflammation, but occasionally the trouble will require more heroic treatment. You can manufacture a very efficient eye-water out of a teaspoonful of common salt, another of baking soda, in 2 ounces of water, and adding a few drops of carbolic acid.

Prevention is better than cure. Colored glasses are cheap and will prevent soreness. In the Northwest, the Indians resort to spectacles made of leather with a very narrow slit in the center of each piece. This simple device is very effective in preventing snow-blindness.

Sunburn is a troublesome thing for all who are not accustomed to living out of doors. The only sure remedy is gradually to habituate the skin to the sun's rays, which will require about ten days. To accomplish this, begin by covering the neck with a quite thick silk or linen handkerchief. In a few days change this to one somewhat lighter. In another few days this may be discarded.

The best application for sunburn that I know is composed of menthol, 10 grains; camphor, 20 grains; white wax, 1 ounce; white vaseline, 1 ounce. This ointment, owing to the white wax, will be sufficiently stiff to resist ordinary warming and can be carried in a cake and rubbed on. In place of white wax and vaseline, the ointment may be made with cacao butter.

When riding in "alkali" dust, many contract a distressing coryza, the nose and throat burning from the acrid inhalation. The cowboys reverse their neckerchief and draw it up over the mouth and nose. This covering should preferably be slightly dampened several times a day and thoroughly washed at the protracted halts.

Care of the Bowels Is Important

Care of the bowels in camp is a very necessary thing. The sudden change in life-habits is decidedly prone to throw the digestive and excretory functions out of gear. Constipation is the rule, although diarrhea by no means is uncommon. Frequently an obstinate constipation is followed by an equally persistent diarrhea.

To avoid a constipation at the outset of a journey (the time when it generally appears), eat only those foods known to possess a slight aperient quality, such as figs, prunes, oranges, and fruits of a similar character. Also use the various breakfast foods. On the other hand, avoid foods containing casein, for example, cheese; also all heavy meats, and such other foodstuffs as have a tendency to leave a large residue.

Another thing of as great importance as the food is a regular habit of life. The man who goes to stool at a certain hour each day will rarely suffer either from diarrhea or constipation. This, by the way, is a bit of advice that should be heeded by everybody, whether going camping or not. Let me elaborate the thought somewhat. Fix upon some convenient hour, and when that time comes, go to stool, no matter whether the desire is with you or not. Do not be in haste, take your time, concentrate your

thoughts upon it, and you will find that in a few days nature will right itself and that when the proper time comes around, you will have the desire to go to stool. In the same way regular people will keep themselves regular. In camp, people are prone to procrastinate in these matters and in consequence a whole train of digestive ills follows in the wake of such negligence.

Treatment of Diarrhea

If diarrhea appears and the patient does not care to resort to medicines, he may, by attending to a few simple hygienic details, cure the trouble himself. In the first place, allow me to impress upon you that diarrhea is only a symptom. It is merely nature's method of getting rid of a fermentative bacterial mass that is causing the disturbance. If given half a chance, nature will sweep out the offending mass and right the ill.

Unfortunately, we are inclined to do those things that nature abhors. We eat when we should fast, drink when we should abstain, exercise when we should rest. The average attack of summer diarrhea can be cured in from twenty-four to thirty-six hours by simply abstaining from all food and drinking plenty of pure water, not too cold, and by lying down quietly to give the intestinal tract a rest. By doing these things, the patient gives the digestive functions an opportunity to right themselves, deprives the bacteria of a medium in which to grow, and with the water washes out the sewer.

Persons often suffer from what is called "water diarrhea," caused by the incautious drinking of large quantities of water when the body is heated, more especially water coming from the snow, as in the higher mountains. The prevention is obvious. Drink less water, and none at all when the body is heated. If exceedingly thirsty, take a mouthful of water and hold it there for a few minutes. Under these conditions water should never be swallowed hastily, but taken in small sips.

Finally—Be Cheerful

One more item and I am done. In outdoor life I have learned a lesson, one that you must learn before you will enjoy your life in the open and be a cheerful companion to those about you. Cultivate a cheerful habit of mind. There are petty annoyances coming up every day, nearly every hour, in camp, which, if allowed to have full sway, will blacken the sunniest day, sour the sweetest temper. The old lady in our McGuffey's "Fourth Reader," who "saw it written on the sack a cheerful disposition," saw a vision that might with profit be applied to the life of every person who lives out of doors.

Every man who goes into the woods should expect that little things will arise that will rub the fur the wrong way and ruffle up the temper. If he permits these little things to harbor in his mind, they will grow until they become veritable "old men of the sea." Shuffle them off with a laugh, pass them by with a smile, forget them, and they pass like the fleeting cloud before the noonday sun. Do not be "cranky" with your camp mates. The old Hebrew who said, "A soft answer turneth away wrath," was wise in his day and generation. Be cheerful, be soft-spoken, and your experience will be one glad, sweet song, and you will look back upon your camp ground with emotions of pleasure.

Startling Truth About Complexion Remedies

By HENRY B. HOLLEN, Ph. G., M. D., Chicago, Illinois

EDITORIAL NOTE.—The perpetuation of the loveliness of "milady" is a source of just as much anxiety to her as is her good health. It will be profitable for you to bear that fact in mind—and to read this article.

IT was at the instigation of my wife that I began to investigate this matter. She was having a difficult time to get a good article at a reasonable price, so she asked me to prepare a facial cream for her personal use—one that would be absolutely pure in composition; that would agree perfectly with her skin, which is exceptionally delicate in texture; and one that would really show the benefit of its repeated application. What I found out about facial creams and cosmetics in general, during the months I was engaged in this task, is of such an eye-opening character that I believe it will be of interest to everyone.

Being anxious, naturally, to arrive at a satisfactory result, I began at the very beginning. I studied the anatomy of the skin long and carefully, getting many fine points, and finding many niceties pertaining thereto, that are usually overlooked. For, it is worth bearing in mind, always, that "trifles make perfection and perfection is no trifle." Next, I went through my medical books in order to familiarize myself thoroughly with the various drugs and materials which are supposed to have a local effect upon the skin and which have been used, more or less, for the purpose of cultivating a good complexion or preserving one.

Also—I noted in a comparative way the formulas at present in vogue, of which I have quite a large collection; and, in addition, examined many facial creams purchased in the open market in the regular way. At last, equipped with a goodly fund of information, I took up the preparation of "the perfect cream" my wife sought.

The Three Types of Facial Creams

Of facial creams there are three distinct types in use, namely, the cold-cream, the vanishing cream and the rolling cream. Only the first need concern us. Everybody who is at all posted on the subject, and ventures to express an opinion thereon, will admit that the cold-cream is the most satisfactory by far. The socalled vanishing cream or greaseless variety is a mere fad at present, which ought to pass away as, quickly as possible; it is nothing more than a soap, in fact, and has no beneficial action on the skin whatsoever. Of course, the reason the greaseless cream became temporarily popular with some women is that it rubs in without leaving the skin oily or shiny, but it is assuredly a waste of time, and also a waste of the energy required to apply it, for any woman to use a cream of this sort. No more can be said in favor of the rolling cream—the kind that, when applied to the skin and massaged with the finger-tips, gradually rolls up into small bits. It is true that such a cream takes out considerable dirt and sebaceous matter from the pores (solely by a mechanical action) but its continued use is disastrous, particularly for delicate skins; it coarsens the surface and enlarges the pores after awhile.

Of the three types, the fatty or cold cream is the kind that every woman should use. But, having narrowed the matter down to this compass, the problem, then, is to choose a suitable cold-cream from among the many modifications of this type. One cannot be too careful, for, as the gold is mixed with dross, so the land is flooded with articles that are absolutely worthless and many that are even dangerous to use for any extended period on any skin. It surprised me to find that the bulk of the creams are of the most *ordinary* namby-pamby sort, made according to old formulas that have been copied from one book into another, and handed down from one generation to another. Not only ordinary but *crude* are most of the creams sold today over the drugstore counter.

Yet they are pawned off on the unsuspecting women by the sheer force of the deceptive claims, and gross exaggeration of their virtues, aided by a pretty package and, perhaps, an attractive scent.

Creams That Are Made "Just to Sell"

By far the larger number of facial creams are made "just to sell" by people who know nothing of physiology or pharmacy and who care less so long as they are able to convert their thing of barter into "the coin of the realm." Accordingly, a very poor cream may be sold, and is frequently sold, in a fancy jar, under a fancy name, and at a fancy price.

The socalled peroxide creams are *fakes* pure and simple; they are said to have wonderful bleaching and antiseptic properties, which is not true. For hydrogen peroxide is not stable and, after a few days or a week at the longest, not a trace of it will be found in such a cream.

To make a cold-cream seems at first such a simple task and apparently requires such a small capital that many a schemer, who perhaps can hardly write his name, assays to build up a lucrative trade on one; he is aided and abetted by commercial supply houses who make opal jars, labels, etc., and who are ready to show anyone, who will buy a gross of jars of them, say, how a cream can be made up to cost only about twenty cents a pound and sell for about twenty cents an *ounce* or more, thus yielding a handsome profit.

Most makers of toilet preparations fall into the temptation of using cheap materials for personal gain and of exaggerating their virtues to promote their sale. Not a few facial creams are made of a cheap paraffin wax and lard. If women only knew the sources of the fatty materials in the creams they are using they would be horrified. From the meat-packing concerns (stockyards) are bought, at low prices, the *offal and leavings of carcasses*, from which is boiled out the lard that forms the base of the cream milady keeps on her dressing-table, and puts on her face, in many cases. Just think of it!

Lard, whether it is benzoinated (to preserve) or not, is objectionable, because it is an animal product. Like any other form of animal matter it quickly spoils and becomes rancid, especially in warm weather. Often the rancidity is masked by "loud" perfumes, but it is there just the same. However, aside from this, it is reasonable to suppose that many disfiguring skin troubles are spread by using creams made from such tainted fats.

Often a cheap grade of almond oil or bleached cottonseed oil is used as a base. Both are prone to become rancid and are little better than benzoated lard. Mutton tallow is sometimes used, but, like lard, it quickly spoils. And the same is true of kidney suet. Castor oil, also, is an ingredient in some creams; it deteriorates rapidly and becomes irritating to the sensitive skin.

A lot of facial creams also contain impure and coarsely-ground borax and salicylic acid. Others contain zinc and bismuth salts, which often and seriously irritate the skin; others contain potato starch as a filler; while still others contain gums and powdered soap, as well as powdered pumice-stone; and it is also said that some are scented with wood-alcohol perfumes. Therefore, it certainly behooves every woman who values her complexion, or who hopes to cultivate a good complexion, to reject every cream that comes from questionable sources; until she knows it is absolutely free from tainted fats, from corrosive acids, and from irritating drugs, she should not touch it to her face even once. The finest skin that nature ever gave to lovely woman can be destroyed beyond repair by a few weeks' use of a bad cream, and besides much muscular energy and money is wasted using poor creams to which the skin will not show response in a hundred years.

Lying and Deceitful Testimonials

Scores of worthless creams are sold on the strength of lying or deceitful testimonials. For a ten-dollar bill a celebrity of the stage, known from coast to coast, will readily write a dozen lines of puff to recommend a cream which she knows is inferior and which, probably, she has never even tried. One actress of my acquaintance admitted frankly that she once wrote a

fine testimonial for what she honestly believed was about the worst facial cream she had ever seen, because the proprietor gave her, in return, massage treatments for the entire season.

I also found, in the course of my investigation, that some very cheap-to-prepare creams are sold at ridiculously high prices; prices out of all proportions to their value. Jars containing a scant ounce are often sold for twenty-five cents, and some are sold at the fabulous rate of one dollar or even two dollars for a two-ounce package. Besides cheapening the cream by the use of second-grade materials, it is quite customary, it appears, to use a container that *looks big;* opal jars, thick and opaque, are favorite containers of the short-measure type, by means of which the unscrupulous maker manages to squeeze out some surprisingly big profits.

It is Not Easy to Make a Good Skin-Cream

Contrary to the popular idea, to make a cold-cream of the kind that will really perform its mission is not at all an easy task. It really requires the skill of a chemist who, besides his skill, takes the pains to select the purest and best materials, and also to use these materials in just the right proportions; as well as to put them in such a finished form that they will keep well and remain sweet regardless of age or weather conditions. In fact, it requires even more than the skill of a chemist to do this, for no one can devise or compound a formula that will prove satisfactory unless he knows the anatomy of the skin thoroughly, its capability of absorbing materials applied to the surface, and its responsiveness to the various ingredients that are used in the making of facial creams.

The best base for a cold-cream is refined petroleum oil—*liquid petrolatum.* It never decomposes nor turns rancid and, if used in correct proportions according to a good formula, makes an article that is smooth and light, even to fluffiness.

To the doctors who have occasion to recommend a cream, and it happens not infrequently that we *are* asked for guidance in this matter, the following is presented as a good working formula: Liquid petrolatum (white), 12 ozs.; white wax, 2 ozs.; spermaceti, 10 drams; borax (chemically pure), 1 1-2 ozs.; oil of rose, 12 drops; oil of bitter almonds, 2 drops; alcohol, 1 ounce. The wax is melted with the spermaceti and oil, and rubbed up smoothly with the borax while cooling; then the perfumes are dissolved in the alcohol and stirred into the mixture.

This is a good cream for *general* use. Of course, skins differ in texture, absorptiveness, power of reaction, etc.; and, on this account, call for variations. Sometimes lanolin, cacao butter, glycerin, tincture of benzoin (among other substances) may be incorporated advantageously.

Rational Infant Feeding*

A Plea for the Baby

By LOUIS I. BOGEN, M. D., Lincoln, Nebraska

YEAR in and year out we pay a toll of about half a million infant lives the majority of which could and should have been saved. During the past quarter of a century general mortality has been greatly reduced through improved hygienic and sanitary conditions, yet infant mortality has remained almost constant. One-fourth of all the deaths in New York City occur during the first year of life, and by far the greater number is due to diseases of the gastrointestinal tract, which largely prevail among artificially fed children. Furthermore, rickets, which is usually the result of improper feeding, is a very important factor in the mortality of other diseases. In Munich, where the death-certificate for infants records the method of feeding, there are found to be eight times as many deaths in

*Read before The Lancaster Medical Society, Nov. 25, 1910.

artificially fed as there are in the breast-fed children.

Artificial Feeding on the Increase

Artificial feeding is constantly on the increase. According to Holt, "an intellectual city mother who is able to nurse her child successfully for the first year is almost a phenomenon, and only 25 percent have been able to nurse as long as three months." Why this should be so is hard to say, but, if inability to nurse is a necessary accompaniment of intellect, so much the worse for intellect.

But worst of all, the inability, or rather disinclination, to nurse is spreading rapidly among the poor and ignorant classes, and since they have neither the knowledge, the time, nor the means to take the proper care and precaution, the artificial feeding is of a slip-shod variety.

Then, what is the cause of this increased inability of mothers to nurse their offspring?

To some extent modern social conditions are responsible, especially where the mother must be a bread-winner. However, in most instances, I believe, it is due to the ease with which substitutes are obtainable. It is unfortunate, but it seems a great many mothers are ready and willing to throw off this imperative maternal duty on the slightest pretext. Dr. Winters points out that during the siege of Paris, while general mortality was doubled, that of infants was lowered 40 percent, owing to the fact, it is explained, that mothers were driven to suckle their infants, while otherwise wet-nursing was common.

Unwillingness of Mothers to Nurse

In my own experience, fully 95 percent of the mothers were physically able to nurse, yet a good many did so either only reluctantly or not at all. Among the wealthier classes fashion-dictates (such as dresses fastened in the back) and "society" seem to be the main obstacles. While nursing, a woman is obliged to give up her social life. To make calls and nurse her baby every two or three hours is out of the question. The woman must also give up evening functions.

Others frequently desist from a sense of modesty. The public provides no accommodations (except the lavatory) where a mother could nurse her child without exposing her person to public gaze, to say nothing of facilities while traveling. I know of some conscientious mothers who draw off their milk and pour it into bottles, to be fed to the child while away from home or traveling.

With the poorer classes the case is different. They find it hard to do their housework and nurse their baby at the same time. I have often heard mothers say, "While the baby is taking the bottle I can get my work done." Here the proprietary-food manufacturers with their seductive advertising come to their aid, and the diplomatic doctor, always anxious to "stand in" with the mother, sanctions a vegetable food before nature makes any provision for its assimilation. Women from foreign countries who always nursed their babies find themselves unable to do so after reaching these hospitable shores of ours.

The Indications for Artificial Feeding

The indications for artificial feeding should be clear and unmistakable, and no deviation should be sanctioned by the physician. The obvious indications are these:

1. When no milk is secreted.
2. Sickness of the mother, such as tuberculosis, epilepsy or chorea.
3. Complications during parturition, such as severe hemorrhage, convulsions, nephritis, septicemia.
4. A general run-down condition where it is plainly evident that the mother's health would suffer from nursing and after attempts at improving her health have failed.

Where the mother's milk seems to disagree with the baby, the cause should be investigated and the condition remedied, if possible, before resorting to artificial feeding. The milk of the mother may be either too rich, too poor, or of insufficient quantity.

If her milk be too rich, reducing the diet of the mother (especially meats and fats), eliminating alcoholic beverages, and en-

joying plenty of outdoor exercise would be helpful. If the milk is poor, a more liberal diet, rest, and mild exercise out of doors would be beneficial. If the milk is scanty, massage of the breasts is of great value in addition to liberal diet and mild exercise out of doors. I had a case, following a complicated labor, where the milk was almost dried up one month after delivery. Here, by persistent massage, liberal diet, and last (though not least), the cooperation of a mother anxious to nurse her baby, good milk returned in abundance in spite of discouraging "grannies" who had been recommending all sorts of artificial baby foods. Even after every attempt at increasing the quantity has failed, partial nursing should be maintained, always bearing in mind that artificial feeding at best is but a makeshift.

What shall we choose as a substitute for mother's milk when nursing is impossible?

It is plain that the food for the infant must conform to human milk as nearly as possible in physical, chemical, and physiological properties. All authorities are agreed that cow's milk is the only available substitute.

What excuse, indeed, is there for a physician to recommend anything else, and what excuse for all the proprietary-infant foods on the market? Yet, judging from the variety of stuff fed to infants, physicians are either not giving the subject serious thought or else are willfully negligent. I know a physician who delivered himself of the following bit of wisdom to a young mother: "Every mother knows what food is best for her baby. Some give it tea, others give it coffee, just so the child gets along, what difference does it make?" That child is getting along very rapidly. It has now an aggravated form of rickets. When *physicians* do such things, what, pray, can be expected from the untutored mothers?

The chief differences between human milk and cow's milk are that the latter is richer in proteids, poorer in sugar, and forms a more solid curd.

To adapt cow's milk for the infant's use, I usually prescribe the top third of a quart bottle of milk which has stood four hours, diluted with two parts of cereal water (the cereal breaks up the curd), adding lime water to alkalinize it, and milk-sugar, of each of the latter in the proportion of about 1 part for 20 parts of the mixture. This will give a mixture containing about 3 1-3 percent fat, 1 1-8 percent proteids, and 6 1-2 percent sugar. I do not think minute percentages are essential.

This formula can easily be modified to suit the needs of each individual baby; for, after all, each baby is a problem by itself, and the physician should be able to judge when the child gets the proper quantity of each constituent of the food.

It has been proven that woman's milk is much richer in lecithin than cow's milk. Lecithin forms a large percentage of our brain and nerves. A baby needs material to build up its nervous system. Danielewski made the discovery that lecithin administered to growing animals stimulated their growth. I can see only one way of remedying this deficiency in cow's milk, Every artificially fed child should be given lecithin.

As to pasteurization. In milk the minerals and proteids are in a loose chemical combination. Heat breaks up that natural combination, while also making the milk less digestible. Good milk properly handled needs no pasteurization. Polluted milk will not be improved by pasteurization.

It would be greatly desirable that every city should own a dairy and to have a laboratory in connection with it where the milk could be controlled from its source to its delivery and sold on physicians' prescriptions for infant feeding. Then there would be no need for pasteurizing milk.

I will refer once more to proprietary foods only to condemn them. They are all of vegetable origin, and nature made no provision in young infants for their assimilation. Their worst feature is the insidious way in which they work their mischief.

These mother's-milk substitutes are weak in fats and proteids and therefore easily digestible, and containing a large percentage of starch and sugar they make the infant fat and thus the rickets resulting from their

use is covered up. To the mother, a fat child means a healthy child, and she doubts the physician who blames the food for the child's troubles. I wish there were a Collier or Bok to take up the fight against the proprietary-food manufacturers and their seductive advertising. Their mischief is infinitely worse than that of all the patent medicines on the market.

A few of the proprietary foods on the market are intended to be used as an addition to cow's milk, but with these the milk is rarely given in sufficient percentage. Besides, they are expensive luxuries as diluents. Barley water, rice water and oatmeal water are much cheaper and every bit as good.

The fact that proprietary foods approach human milk in chemical composition hardly means anything. As Chapin remarks: "Remembering that the chemist can not differentiate between a diamond and a piece of charcoal, while mixtures of butter, cheese, sugar, salts, and water, or of beef-suet, raw beef, sugar, salts, and water can be made which, when analyzed by the usual methods, will show the same composition as mother's milk, the fallacy of judging the suitability of foods for an infant, or an adult for that matter, by chemical analysis only will be apparent."

In justice to the proprietary foods I will say that there is a proper field for them for invalids and convalescents, but decidedly not as infant's foods.

With race suicide on the increase, with mothers bearing children grudgingly, and infant mortality relatively so high, the situation is surely grave enough for our earnest consideration. Something must be done to awaken mothers to their duty, and who but the physician, the guardian of the public health, should do it. Furthermore, we doctors are largely responsible for the present deplorable condition of affairs.

The physicians of the country should inaugurate a vigorous campaign against artificial feeding of babies. We must enlist the aid of the local, state and national authorities in this movement. We must do everything possible to encourage nursing.

Among other measures, every community should maintain one or more rooms where a woman away from home could nurse her child in private. Railroads should be compelled to have a compartment in each train set aside for nursing women. With this, every infant's death-certificate should be required to specify the method and kind of feeding given, and these reports should be tabulated and made public from time to time. Then mothers would learn the relative worthlessness of artificial feeding in general and of the proprietary milk substitutes in particular, and physicians would think twice before recommending any manufactured baby foods.

Then, all this should be accompanied by an educational campaign through lectures before women's clubs, mothers' meetings, and similar bodies. We should also endorse the plan of making the subject of "infant feeding" a part of the public-school curriculum for girls—for the girls of today are the potential mothers of the future.

Acute Gastroenteritis*

And How Best to Treat It

By GEORGE H. CANDLER, M. D., Chicago, Illinois

THERE can be no question that the more serious forms of enteric disease can be avoided to a great extent (and controlled promptly and positively when they do present) by modern methods of medication. Many of the cases of "summer diarrhea" which terminate fatally could have been easily controlled in their early stages. Even cholera infantum in its typical form (which after all is rarely encountered) will yield readily to proper therapeutic measures during the first twenty-four hours.

Children who have been prone to looseness of the bowels, during the months of July, August and September, are, under the

*From Dr. Candler's book on the "Every Day Diseases of Children." Price $1.00. Procurable from The Clinic Publishing Co., Ravenswood Station, Chicago.

care of the well-informed practician, enabled to pass from spring to winter without any marked disturbance of the alimentary tract. A certain increase in the number or altered consistency of the stools is to be looked for when the fruit season arrives, and with the advent of spring and "green things to eat" the average human being finds his bowels moving more freely. This is desirable and normal. Two or even three loose stools per day should not be regarded as pathological, but at the first sign of enteric disorder—colicky pain, frequent passage of thin, watery or pasty, stinking stools—treatment should be instituted.

The doctor should impress upon his clientele the positive necessity for prompt treatment. He should especially explain to young mothers the importance of an early recognition of acute enteritis, pointing out the fact that in many cases life has been sacrificed simply because the doctor arrived too late.

This disease is very commonly and mistakenly termed cholera infantum, the latter being an entirely different and much more serious malady. The writer has not seen half a dozen cases of true cholera infantum in five years. Acute gastroenteritis is, however, omnipresent. The symptoms vary in severity and are known to every practician. The bacteria discovered in a given case may be numerous—streptococcus, the colon bacillus, staphylococcus, bacillus proteus, pyocyaneus, etc.—any one or a variety of these microorganisms being distinguishable in the stools. As, under medication, the frequency of the latter lessens, the severity of the symptoms moderate.

Two forms of the disorder are recognizable, one mild, the other severe.

In the first case the child (who may be teething) shows signs of malassimilation: food passes through the bowel imperfectly digested, accompanied by much gas, and attacks of vomiting occur. After a day or two the vomiting and stools become more frequent, the latter bearing either a greenish-brown slime or consisting of a greenish or dirty-gray fluid.

Still later there may be much mucus streaked with blood. The smell of such stools is most offensive. Throughout, the child is fretful and complains of cramping pains, or, if too young to do this, draws its legs up and screams. The skin is hot and usually dry and the temperature in mild cases rises one to two degrees. Occasionally vomiting is altogether absent; in others diarrhea does not appear for some hours after vomiting and other evidences of gastrointestinal imflammation.

In the severe forms all these conditions are accentuated. The temperature may reach 103° F., and as many as fifteen or twenty stools may be voided in the twenty-four hours. I have noticed that such cases usually begin with obstinate vomiting and the passage of one or two stools containing much undigested food. The vomitus at first contains sour food-material and later is a foul fluid containing mucus and bile. As the child is extremely thirsty and craves for water, the abundance of the fluid can easily be accounted for.

This disease affects alike the bottle- or breast-fed infant and the child on mixed diet. While improper feeding is without doubt the usual cause, heat and bacterial invasion of an exhausted system are alone responsible in many instances.

The disease must be looked upon as mildly infectious and the stools and vomited matter should be carefully disinfected. The affected child may gradually waste and become almost a skeleton or, after a few days, the disorder abating, recover rapidly. In very marked cases death may take place within forty-eight hours. In some cases two or more such attacks occur in the one season and not at all infrequently entero-colitis sets up.

Treatment.—Knowing, as we do, that the whole chain of symptoms is due to the presence of undesirable material and bacteria and that no gross pathological lesions exist, treatment is really simple, but to be effective must be positive.

As in cholera nostras, we have to get rid, as fast as we can, of the fermenting, germ-breeding, toxic bowel-contents. Further, being aware of the presence in the rugæ of the intestine of millions of pathological microorganisms, we must not put into the alimentary tract material favoring germ

propagation. We must also exhibit intestinal antiseptics of an astringent character.

The first step is to stop all food and wash out the lower bowel with either a plain, cool, saline or mildly alkaline antiseptic solution. If the vomiting is marked, pass a catheter into the stomach and wash it out. As this is not always feasible, give a mild solution of magnesium sulphate slightly acidulated and sweetened with saccharin. Saline laxative (alkaloidal formula), one small teaspoonful to the half pint of water, works perfectly. It is well to give gr. 1-10 to gr. 1-6 of calomel, and gr. 1-12 to gr. 1-67 of podophyllin half-hourly for four to six doses, according to age of child, to secure a thorough emptying of the intestine and increased hepatic activity. This is the "first thought." One dose should be given before anything else is done and the physician himself (unless a competent attendant is present) should then give the enema. One hour after the last dose of calomel, exhibit a fairly full draught of saline laxative. This serves to flush the already cleaning intestine and leaves the mucosa in good condition to withstand bacteria and absorb such nutritive material as is allowed.

During this time, if the skin is hot and dry, have the child sponged hourly and covered lightly with a thin flannel garment. It is to be kept in a cool, shady place. Barley water, made thin, will prove the best drink at this period. Every two hours at least one grain of the combined sulphocarbolates of lime, sodium and zinc should be given—preferably in solution. A mentholated saccharinated tablet is obtainable which serves excellently. In bottle-fed infants this solution may be given from the bottle, as also may the laxative saline draughts. In older children, the powder, mixed with a little sugar of milk, may be given on the tongue and a drink of boiled (or barley) water follow.

Very minute doses of atropine (or hyoscyamine) are of great service during the first day: gr. 1-250 may be dissolved in six teaspoonfuls of water and a teaspoonful given every two hours. If this treatment is carried out, the next day will reveal a recovering patient. But here care means everything: the sulphocarbolates must be continued, the lower bowel flushed and the mouth kept clean. Albumen water, barley water containing a few drops of fresh beef juice, or a few spoonfuls of a well-cooked cereal gruel may be given. Zwieback is safe and well liked by most children. Under ordinary circumstances this diet may be slowly but surely added to until normal feeding again prevails. Brucine, gr. 1-134, or hydrastin, gr. 1-6, may be given as a bitter tonic for a few days. It is also a good plan to institute about the fourth day another course of calomel and podophyllin; or in place of the latter iridin, gr. 1-6, may be given hourly for four hours. If the stools are markedly offensive and clay-colored add bilein, gr. 1-12, to every other dose. The effect is immediately noticeable.

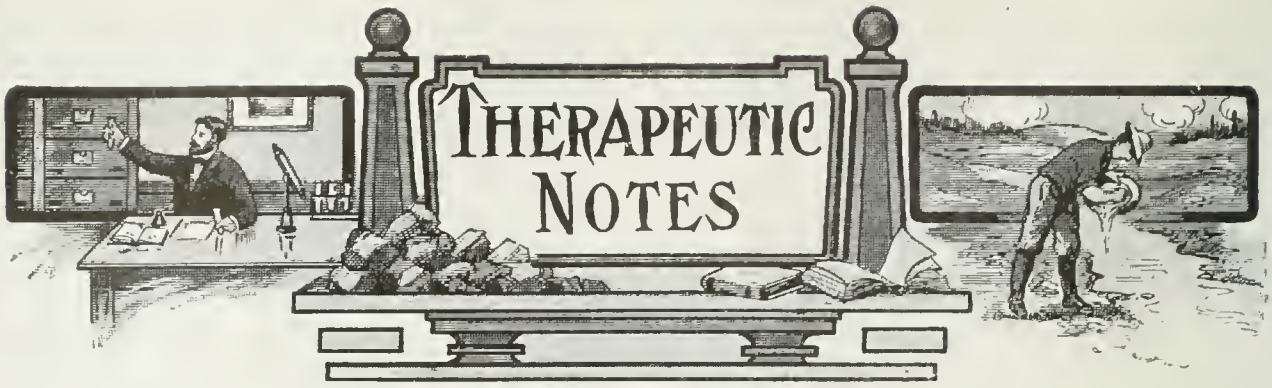
In a few cases hyperacidity is marked; here calomel and soda (aa. gr. 1-4) acts rapidly. Should the condition persist, a few doses of "neutral cordial" will promptly prove corrective.

It should not be forgotten that in all these cases more or less local congestion exists; atropine is our best remedy for localized congestion, bringing, as it does, the blood to the surface. Moreover, this drug stops the excessive secretion of mucus — another desirable feature. It is always well to give fairly full doses of atropine *at once* when the skin is cold and pale; cactin and brucine (aa. gr. 1-67) will perhaps prove the best subsequent stimulants.

If the disease has progressed and weakness is marked, nuclein is strongly indicated; six to eight drops should be given under the tongue thrice daily. It is in these cases, that rectal injections of beef juice and starch water prove valuable.

In those cases where the system has been deprived of large amounts of serum, enteroclysis is imperative, and here decinormal salt solution with two drams of prepared blood to the pint proves especially very valuable.

It is well in all well-marked cases to give thin, clear beef- or chicken-bouillon for the first day or two after normal conditions are restored, returning to milk very gradually.



GASTRIC LAVAGE TO PRECEDE ANESTHESIA

Norbury urges (*Lancet*) the importance of gastric lavage preceding anesthesia, leaving a tube in the stomach throughout the operation.

THE CAUSE OF PRURITUS ANI

Bennett, in *The Lancet* of June 3. calls attention to the frequency with which pruritus ani is caused by an irritating discharge from the rectum. Superheated fat, or fried bacon, always induced an attack. He does not appear to have suspected that the pruritus was caused by a discharge from retained and decomposing feces.

HEPATIC ABSCESS

An observation of importance was made by Basseres: After an operation for hepatic absecss the skin about the wound ulcerated, and amœbæ were found in the serum. Ordinary antiseptic dressings failed but the ulcers improved under Labarraque's solution. This might be tried as a remedy in amœboid dysentery.—*Arch. de Med. et de Pharm. Militaires*, April, 1911.

ENLARGED PROSTATE AND CHRONIC DIARRHEA

Dr. E. A. Edwards, of South Carolina, reports the case of a patient, aged sixty-four years, who returned from the Civil War with chronic diarrhea, from which he has suffered ever since. He had also an enlarged prostate, which interfered with defecation, the stools being ribbon-like. Under the use of chromium sulphate the gland was reduced at least three-fourths, and the bowel trouble so completely cured that means have to be taken to keep the bowels regular. Previous to taking this remedy he was accustomed to go to the toilet from three to six times during the day and three times every night; now his bowels move once a day. The masses are quite round, not compressed at all. Three tablets chromium sulphate, 4 grains each, *per diem*, checked the bowels more than was desirable.

THE ARYLARSENATES IN MALARIA

Pierpont and Acton (*Indian Medical Gazette*) have studied the malarial cachexias presented in India, and sum up the following treatment: (1) Get rid of all parasites by the use of enough quinine. (2) Stimulate the hemopoietic organs by intramuscular injections of soamin. Of this 5 grains are injected on alternate days for six times, then suspended for ten days, and then six more injections given likewise. The total dosage must never exceed 100 grains. All cases in the first or second stage respond.

RHUS POISONING

Dr. C. H. Gardner says (*Med. Record*) that after cleansing with a 1 : 40 solution of carbolic acid and soap, water is not used. If the parts have to be cleansed, carbolized oil is used, on absorbent cotton. Apply lead and morphine lotion on antiseptic gauze and dust with camphorated stearate of zinc. At bedtime advise to wear loose cotton gloves. This will prevent spreading to the eyes and genital organs.

"Internally I use aconite and gelsemium, for the fever and nervous disturbance, and

calomel, ipecac, and bicarbonate of sodium, following with a heaping teaspoonful of sulphate of magnesium in one-half a glass of water before breakfast. I sometimes add an equal amount of cream of tartar. If the bowels move too freely, reduce the amount so that the patient will have two or three good movements a day."

CACTUS IN HEART DISEASE

Edward E. Cornwall says in *The Medical Record*, January 14, 1911, p. 50: "For irritability of moderate degree occurring in fatty heart, cardiac sclerosis, and aortic sclerosis, cactus has seemed to me a particularly useful drug. I always prescribe the tincture of the green plant. Cactus has been classed among the heart stimulants, but I believe that it is better placed among the sedatives."

VOMITING OF INFANTS

Variot reported to the Academy of Medicine (Paris) upon the excellent results obtained from the use of sodium citrate in the treatment of vomiting in newborn babies (*Gaz. des Hop.*, Oct. 20, 1910, p. 1629). He employs the following prescription:

Syrup	Gm. 25
Water	Gm. 125
Sodium citrate	Gm. 2.5

One teaspoonful before nursing, or mixed with the milk in the bottle, is the usual dose.

DO HOP VINES KEEP FLIES OUT OF HOUSES?

A writer in *The Christian Advocate* is quoted by *The Texas Courier-Record of Medicine* (Aug., 1910), who suggests that hop vines may be objectionable to flies. Living in a town in Bulgaria, a land where filth and rubbish abound as almost nowhere in America, this writer holds that her house may be considered a fair testing place for the efficacy of hop vines in keeping out flies. The vines run over the porch and over the windows. There are no screens, but no flies enter the kitchen, no matter what cooking is being done there. When the vines were laid on the ground so that the house could be whitewashed, the flies swarmed into the kitchen; on replacing the vines, freedom from flies was again enjoyed.

Although we depend so much on screens in the United States, *The Courier-Record* comments, this information may interest many, because screens can seldom be perfectly effective. It may be a question whether the flies are actually kept out of the room because the hop vine is objectionable to the insects or because the room is darkened by the vines over the windows. Any room that is kept fairly dark has no attraction for flies.

INFLUENCE OF AGE AND TEMPERATURE ON DIPHTHERIA ANTITOXIN

Anderson reports that the average yearly loss of activity at the temperature of the room is about 20 percent; at 15° C. (59° F.) about 6 percent. Dry diphtheria antitoxin retains, in the dark at 5° C. (41° F.), its effectiveness for at least five and one-half years. Old serums are as effective as fresh ones corresponding to their unit-contents.—*Zeitschr. des Allgemein. Oesterr. Apoth. Ver.*

DEATH FROM COCAINE

The Therapeutic Gazette records a case of death following the injection of a 10-percent solution of cocaine into the urethra. The patient was a soldier, with urethral fistula secondary to a stricture. The quantity of cocaine absorbed was exceedingly small.

VERONAL FOR COUNTERACTING DISAGREEABLE EFFECTS OF MORPHINE

The disagreeable effects of morphine can be obviated by combining it with diethylbarbituric acid or its salts (veronal, medinal), according to Wolfram (quoted in Skutetzky's "Neuere Arzneimittel," 1908). He does not give the remedies together, but lets the patient take the veronal by mouth, then half an hour later administers the morphine hypodermically. In this way, it is claimed, 0.5 Gram is

capable of preventing the bad side-effects of a dose of 0.03 Gram morphine without in the least diminishing its pain-relieving action.

If this is true, the thought is suggested that the morphine-hyoscine narcosis might be improved by giving 5 to 7 grains of a diethylbarbituric preparation one or two hours before injecting the former—possibly in reduced dosage.

As bearing upon this suggestion, a statement of Reich and Herzfeld (*Therapeut. Monatsh.*, 1908, No. 7) may be of interest. These authors recommend veronal in parturition when the first stage is protracted and a somnifacient seems indicated. They found that in doses of 4 to 7 grains it allays the uterine pain without diminishing the intensity of the contractions, labor proceeding with the patient in a dazed, dreamy condition. If subsequently a volatile anesthetic is resorted to, the amount required will then be comparatively small.

POSTOPERATIVE ACUTE GASTRIC DILATATION

H. M. Hepperlin (*Western Medical Review*, Jan., 1911) has observed this condition in 3 cases out of 313 abdominal operations following upon the operation after from six to twenty-four hours. The first case terminated fatally, the other two in recovery, owing to the prompt use of gastric lavage, and the author believes that he could have saved the first patient if he had instituted the same treatment early enough.

The author is fully persuaded that strychnine, physostigmine, and the various other drugs recommended in this condition are, as a rule, far more injurious than beneficial, and he insists upon the prompt and thorough washing of the stomach, in acute gastric dilatation, as the safest and best method of procedure.

IRON HYPODERMICALLY

R. M. Niles recommends, in *The Medical Council* for February, the hypodermic administration of iron wherever this remedy may be indicated, and claims to have seen excellent results from its use in this manner. His technic is as follows:

The solution is prepared by adding 2 Grams of iron and ammonium citrate to 8 Cc. of boiling distilled water in a sterile vial. The solution is corked with a sterile stopper and heated in a water-bath each time before using. From 2 to 8 minims of the solution are used for a single injection. The injection is made deeply into the muscular tissue of the thigh, shoulder or arm, care being taken to have the skin, as well as the syringe and needle, surgically clean.

Slight pain is experienced at the time of injection. But little local reaction takes place. Later a hard nodule may be felt at the site of injection, which soon disappears.

THE EFFECTS OF LIGHT AND SHADE, COLOR, AND TONE UPON NERVOUS PATIENTS

Many patients, says a writer in *The Medical Times* for July, 1910, will complain of the unpleasant or irritating effects of their surroundings. They say that going to a certain person's house or being in a certain place aggravates them. An analysis of mental states may reveal some experience whose association is concealed, or subconscious. If no such experience can be found upon which to base the psychic reaction, some condition inherent to the particular place or environment may be discoverable.

Among the principal effects of environment, that of color, light, and shade should be thought of. The singular psychoses known as agoraphobia, claustrophobia, and related states of fear arising in hitherto unexplained causes may be due to optic or psychosensory deviations from the normal. Many people who may be classified as normal object to dark paper upon ceilings alone and wish this light-effect continued down as far as the border. To some such people, a room with a deep color upon the ceiling and a very light tone on the walls would be unpleasant, irritating, and aggravating. The reverse, then, will be all these disagreeable qualities to people reversely constituted.

Nervous Dyspepsia

II

ENTEROPTOSIS is frequently observed in nervous dyspeptics. I even think that there can be no true intestinal displacement except in manifest neuropathic cases. Be this as it may, yet ptosis shows itself ordinarily by a feeling of abdominal weakness, shattered state of the stomach, or more exactly, by a dragging at the mesogastrium, oppression at the pit of the stomach, smothering, gases, tightness around the head, spells of anguish, vertigo, weakness of the loins, and cramps of the legs. Lying on the back at night and strapping of the abdomen during the day allay these symptoms. It is when the stomach is empty that the wearing of a well-tightened abdominal girdle, which lifts up the prolapsed belly at its most dependent part, is the best treatment.

The abdominal girdle is as necessary for the lean person as for the fat. Both of these have their belly like a wallet, only that the lean person has it inside. (Ewald.) Since the enteroptosics tolerate better the dinner and even the supper than two luncheons, it will be best in a certain measure to have them feed most at these meals, remembering that their fattening is a necessary condition of their cure. It goes without saying that they should use a diluent diet, yet I would warn against the abuse of pap, purees, pastry, compots, and other mashed aliments, since by the disuse of mastication we favor that fatal tachyphagia (hasty eating) which every neuropathic should avoid.

For exercise, the Germans prefer, for patients with intestinal ptosis, walking on all fours without bending the knees, and I was able to convince myself that this singularly strengthens the natural abdominal musculature. Mountain climbing, riding the tricycle, regular abdominal massage, static electricity and the high-frequency current (the latter reserved especially for the presclerotics) is also recommended. Tepid douches will remedy the nervous instability, as well as keep off pruritus and urticaria, which are frequent complications in the case of neurodyspeptics. As to medicaments for ptosis, strychnine ahd ergotin granules (two of each, three times a day) have given me real good service, especially in female patients.

When there is a clearly defined complication of hypochondria, nothing is so much contraindicated as a milk regimen, which only accentuates the paresis of the stomach and the inertia of the bowels, diminishes the peptic secretions and the work of the hepatic cells, exaggerates the vice of fermentation, and annihilates all effort at digestive stimulation. Milk, moreover, is but a sub-aliment, still, if it would be always tolera'ed, its tendency to enfeeble the body might be endured for the sake of resting the stomach. The lactic diet of the neurodyspeptic must consist of kephyr, kumiss, and yoghurt. These fermented milks cause neither ballooning, heaviness or somnolency. Bouillon, hot and with the fat well removed, taken with some granules of pepsin, papaine, pancreatin, or diastase, is also a drink which incites to increased activity the gastric peptogenic glands. I look with pleasure at the return of clinicians to the use of this agent for restoring

the stomach, an agent I never left off from utilizing in my own practice.

Some hypochondriacs are afflicted with merycism, which is a sort of rumination and at first is involuntary, but little by little becomes transformed into a veritable conscious tic, thanks to neuropathic influences. We meet also in these cases with chronic diarrhea and cardiac troubles, owing to an upward pressure of the diaphragm by intestinal gases. To prevent this complication, I give, after meals, 30 drops of a mixture of equal parts of peppermint water, tincture of anise (green), eau de Rabel (alcoholate of sulphuric acid of the French Codex), and the official phosphoric acid. This treatment ameliorates the hypopepsia and clears up the milky and putrifiable urine, which is full of phosphatic ammonia-magnesia. Salt baths, very warm clothing, friction and compresses with alcohol over the stomach are good for the hypochondriacs, and so, too, is vibratory massage. Apropos of the last, it is to be said that our Gascon confrère, Sabrazes, affirms that a purring cat in the lap makes the best gastrointestinal vibratory massage. Here you have zootherapy indeed!

When the gastric atony is refractory, then lavage of the stomach may at times come into use advantageously. It is detergent and aseptic, stimulates the motility of the organ whose secretion it wakes up, and quiets its irritability. It acts also much, we would say, by way of suggestion, modifying the depressed psychic condition of the subject. But we make use of this expedient exceptionally only, as we should of an emetic for a rapid cleansing of the stomach. In certain cases of obstinate anorexia and also in uncontrollable vomiting, gavage (feeding by stomach-tube) is to be followed by lavage of the stomach.

In dealing with hyposthenic patients, we must guard against optimism to the uttermost; for if we should nourish the patient insufficiently, then dyspepsia, especially in the young, favors tuberculous infection, while, on the other hand, every attempt at superalimentation carries the risk, ordinarily, of inducing toxic troubles in the intestines, the liver, and the kidneys. We must also avoid alarming nervous individuals by frequent examinations and prolonged questions or by a too closely regulated diet and thus inaugurate promptly in the emotional individual an alimentary phobia by autosuggestion.

Gastric psychoses, hypochondriac obsessions, prepare the patient for nausea, vomiting, and intolerance of nutrition. On the other hand, there will result aggravation of amyosthenia, lassitude, and inaptitude to work, and from these arises deleterious interlinking of troubles between the stomach and the nervous system. We must also be able to ferret out cases of inanition, by a progressive restriction of the ration we allow, for a sufficient and well-tolerated regimen accomplishes at times, in these cases, the very miracle of a resurrection.

Prolonged rest in bed, also, is often enough necessary to calm the irritation (dizziness) which very lean ptosic patients feel when in the vertical position. These patients must avoid all excess in venery, which would render them incurable, and they should guard against idleness, which favors unhealthy autocontemplation. The distraction of travel and a well-directed water-cure at times will benefit these patients, when neither rest nor diet do them any good.

Quassin and strychnine as digestive stimuli are of no value when swallowed in the form of granules, but as gustation is, to put it in a word, the point of departure of gastric reflexes, I think that we ought to act upon the nerves of taste and therefore recommend that, in spite of the bitterness, these granules be masticated. Strychnine, above all, acts on the medullary centers, while as to quassin, we all know that the late lamented Laura considered the granules of quassin as the most powerful galvanizers of the depressed stomach and at the same time as a precious peristaltic tonic of the intestines and as an indirect sedative of the nervous apparatus. Quassin, especially when chewed, increases eupeptic salivation sensibly and incites also a good quality of appetite.

Emetine is, at times, needful for exciting the too torpid gastric muscle. Cannabin and cocaine relieve the distressing heaviness

of the stomach. Atropine triumphs over spasmodic pains. Against the latter I also recommend flannel compresses soaked with camphorated alcohol and put over the gastric region. This is an insignificant remedy but one which I have never failed to use with success in a practice of more than thirty years, and with which I have calmed the pains of thousands suffering with gastralgia. If the spasms persist, you can relax the muscular tunic and the twinging pains of the nervous plexus by a hot douche, that is, one devoid of any percussive force. The fluid extract of parsley was much vaunted of late, by Sardou, as an excellent antispasmodic for the stomach. I prefer, especially in females, a mixture of the tincture of senecio and an ethereal tincture of valerian in doses of one to two teaspoonfuls in sweetened mentholized water.

The appetite is the neuromuscular, moving cause of the stomach. The part of the kitchen is precisely to arouse the appetite, by its aromas, and to stimulate the psychic gastric secretions of which Pawlow speaks as veritable antagonists of anorexia. The bitter saliva and the polydigestive granules (strychnine arsenite, 1-2 milligram; amorphous quassin, 5 milligrams; pure papaine, 2 1-2 centigrams) are the precious agents that set in motion that eupepsia which, by a pushing force, continues to act of its own accord. All other condiments irritate the digestive mucous membranes by their essential principles. The dyspeptic must always be careful of what he eats, and must avoid gormandizing, for which he has to pay dearly.—Dr. E. Monin, in *La Dosimetric.*

[*To be Continued.*]

THE BULGARIAN BACILLUS

Jean Effront said that this bacillus differs from the Bertrand bacillus in its strong proteolytic action. It produces in the milk a great quantity of volatile acids and changes the casein in such a way that the milk becomes a transparent bright-yellow fluid which turns more and more dark, while the Bertrand bacillus, although it acidifies the milk strongly, forms relatively few volatile acids and transforms the casein but imperfectly.

The different results from these two microbes do not arise because they are biologically different, but because of certain culture conditions which produce a biochemical variety. When the Bulgarian bacillus is grown in normal milk, it retains all its qualities, but it changes considerably with the manner of the admission of air (*lueftung*) and the alkalinity of the fluid. The medicinal results from the use of the Bulgarian bacillus do not come simply from the lactic acid formed, but from the constant presence of proteolytic effects.—*Compt. Rend.*, 152, 463, in *Pharm. Zentralh.*, 1911, p. 502.

THE CHANGES IN FOODS BY EXPOSURE TO COLD

The changes in frozen meat consist in loss of weight from the loss of water, which after four months amounts to from 7 to 11 percent, and after nine months from 12 to 23 percent. There is also a loss of juice, which escapes when the meat thaws, and also a loss of the red corpuscles, through their disintegration and removal. Deterioration, however, or diminution of nutrition value do not take place. The loss of weight in cooled meat, by the loss of water, is greater when it is cut into small pieces and less when in quarters or halves of the carcass. Cooled meat brought into the open air putrefies rapidly, because moisture precipitates on it by sudden changes of temperature, and the disintegration of the muscular tissue favors the penetration of bacteria into the deeper parts.

The freezing of fish influences the meat unfavorably because of the loosening of the muscular segments. The best temperature at which to keep fish fresh is at zero.

The freezing of milk differs from that of water. The frozen part of the milk consists of lamellæ of ice, loosely held together, which hold the unfrozen fluid part of the milk between them. This fluid part usually contains the greatest part of the fat. *Suedd. Apoth. Ztg.*, 1910, 726.

The Limitation of Offspring: The Discussion

EDITORIAL NOTE.—We have published few papers in CLINICAL MEDICINE *which have aroused so much interest and so much comment, favorable and unfavorable, as has Dr. Robinson's article on "The Limitation of Offspring," which appeared in our June and July issues. We are unable to print here all the papers, discussing it, that we have received, but we give you a representative selection, holding back a number of equal interest and forcefulness for our September issue.*

A DANGEROUS DOCTRINE

I HAVE read through more than once Dr. Robinson's article on "The Limitation of Offspring," and always with painful interest and increasing disgust. The member of your staff, whose comment appears on page 582, emphasizes the gruesome purpose of the aforesaid writer, although the fellow member, expressing his views on the following page, undertakes a mild rebuke, evidently with the intention of keeping the pages of CLINICAL MEDICINE clean and wholesome for the table in the physician's office and the fireside of his home.

The answer to Dr. Robinson, as printed on page 583, is so temperately and completely done that I hesitate to enter the lists, for it is a master of self-restraint who can essay a reply to such wicked and dangerous dogma with patience and calmness when promulgated by a member of his own household, a member of his own honored profession: wicked, because in essence it advocates the spirit of murder; dangerous, because it seeks to break down the thin line between a savage state and our civilization and to upset the balance of nature. It helps a condition already too much in evidence.

I have been in the practice of medicine for many years. I have a fair information of the rise, career and fall of nations, powers and principalities since history was written, and I know that such pernicious teachings and practices, coupled with other like habits, were factors in their ultimate undoing. Also, I have a fair knowledge of the times and writings of my professional colleagues from the days of old Hippocrates to Osler and Wier Mitchell, but, offhand, I do not remember the spreading of a doctrine or dogma by any of these great men so dangerous to public morals, and doubly so in a time like this in our social, money-mad, national life, a period so damnably wicked in the encouragement of vice.

One who would deliberately interfere with the laws of nature in the legitimate procreation of offspring, whether in the palace of the rich or in the home of poverty with its one lone vine trailed over the door, is an enemy to public safety, for he initiates social corruption and encourages it, and turns a holy nuptial bed into a bed of legalized prostitution. One need not strike the fatal blow to be a murderer; one may be personally clean and still be a menace to society.

In introducing his article on "The Limitation of Offspring," Dr. Robinson recites that "the entire progress of the human race has been due to unusual

things." Yes, and no one will dispute that his wicked and foolish notion is an "unusual" thing, and one wonders whether the man is in his right mind. Then about these "unusual" things he says: "If Spinoza had not thought some unusual thoughts, we might still be cherishing the free-will fetish; if Morse, Stephenson and Fulton had not thought some unusual thoughts, we should not have had the telegraph, the railway, the steamboat." Many more he mentions of the world's benefactors, and he might also have added that if Thaw had not thought some unusual thoughts, he would not have shot to death White, the architect. And so Dr. Robinson's unusual thoughts prompt him to advocate crime.

And now let me ask Dr. Robinson, where would be Spinoza and his philosophy, where would be Morse, Stephenson, and Fulton, their telegraph, railways and steamboats, if their mothers had declined to give them birth, or if some red-handed abortionist had advised their fathers how best to perform the act of intercourse so as to escape the natural consequences? Where would be Carroll, Reed, Lazear, and Agramonte, whose lives were a benediction to plague-swept Cuba and whose names are safely with the immortals while time endures, and maybe forever in the Valhalla of eternity.

If Dr. Robinson's mischievous doctrine should obtain, how long would it be before the physical manhood and womanhood of our people would degenerate; how long the laborer, in whom he is so much concerned, would become a member of the army of tramps because there are no children's voices to call him home, a home whose threshold is overgrown with mosses because there is no impression of little feet upon it?

Such lax regard for instinctive morals would lead directly to unrestrained license, and this inevitably to a complete dissolution of our civilization. In that decline and racial destruction, we should sink to the level of the once illustrious Egyptian, but our own wild savage of the plains would have none of us—he does not do such things as Dr. Robinson suggests.

The brightest men and women, and the best, come up from the home of poverty crowded with children. The pernicious doctrine advocated by Dr. Robinson has been secretly taught and tentatively promulgated ever since the captains of finance were permitted to be the masters of the people, imitators among whom, not having the financial ability or opportunity to get rich quick, seek to beat the game by eliminating the children.

And so matrimony and its holy bed would be solely for the base gratification of lust, with no thought of higher aims and ambitions! What chaos would revel in the land if the laws of the states should institute such a plan! In contemplating the duly legalized limitation of offspring, a picture rises before me. I see written over the door of the physician, the quack, and what-not—for all these kith would be on a common level: "*Abortions carefully and cheaply done here.*" The teachings of prevention are allied to abortion, and these to murder.

A. S. Condon.

Ogden, Utah.

POVERTY AND PROGENY

The article in your journal on the limitation of offspring, by William J. Robinson, M. D., was called to my attention by a friend. Being interested in the social problems of today, I beg leave to express my opinion.

The method chosen by the author, for the amelioration of the economic pressure in the substratas of society, is rather a startling one, inasmuch as the most scrutinizing sociologists have, in turn, eliminated large families as the causative factor in financial submergence.

There are many and diverse opinions as to what method should be employed for this social adjustment. That is why one can very easily lose himself in the labyrinth of opinion, and failing in the search for the right one, will stab at a healthy part and further complicate matters.

Following the author's contentions as closely as possible, I must confess that our

observations on this subject are very much divergent from each other.

As to the attitude of the poor parent to the advent of a third or fourth child, I, myself, in my own experience, have not met with any such distressing and inhuman scenes as quoted by Robinson.

Every physician no doubt is frequently consulted by patients entertaining abortion thoughts. I had my share, but although a third or a fourth conception is dreaded and fought against, yet, when actually conceived, it takes a pretty hardened woman or perverted maternal instinct to have recourse to miscarriage or to curse the unborn offspring when she becomes aware of life within her. Such women are really more debased by rum or abuse from drunken husbands than by poverty and repeated pregnancies. They are not even fit for the care of one child.

If a woman, no matter how poor, has the moral fitness for motherhood, repeated pregnancies do not degenerate her nor do they appreciably change her economic condition.

In a great many instances I have casually addressed myself to the factory man, the rag peddler, the shoemaker, questioning the advisability of raising such a large family, and I am pleased to say that the answers are essentially the same.

"Of course, doctor, it is hard on a poor man, but what can you do? Another little mouth to feed, true; but it won't make me, and it won't break me."

And the man is right, with few exceptions, they become reconciled before the little one is born. It is the same poverty-stricken father of four who stands there with trembling anxiety and curbed impatience waiting for the cry of the fifth, and then rushes out to notify his relatives.

A young mother came in the other week with a few-months-old youngster to have him vaccinated.

"How is it you did not call me for your confinement?" I inquired reproachfully.

"Well, doctor," she answered, somewhat embarrassed, "I was a little angry at you because you did not help me when I was a few weeks overdue. You see, if we could afford another baby it would be different; but my husband is a hard-working and poorly paid man."

"Is the baby in your way now?"

"Why, doctor," the woman blurted out, flushing and tenderly caressing the thing in her arms, "I would not part with him for a million dollars!"

I do not know of any family whose standard of living has declined apace with the successive advent of children, unless the change had been directly brought about by business reverses or parental incompatibility.

Now a word as to the future fitness of those reared among the poor.

Unfortunately I have not had the time to look up the biographies of all the eminent men quoted at the beginning of the author's paper. But I venture to say, and with safety, I am sure, that a large percentage of them were lowly born and members of large families.

Run through the list of our great American financiers, and you will find them in the first chapter of their career knocking from door to door with a pack on their back. Turn the pages back to the childhood of our presidents, and you will find a few log cabins among the homesteads they called their's.

Though poverty is a serious obstacle toward advancement and many among the poor are victims of filth, want and disease, yet, somehow, a large proportion wriggle out of it and manage to sit with the exalted of the land.

From a young man lowly born, struggling for an existence, fighting adversity, you may expect something, for in his struggles he develops a moral and mental antitoxin to such diseases as indolence, oversatiation, and all the other afflictions of the rich. Driven by want, his mentality becomes active, and if perchance there is a seed of ambition in his make-up, it usually germinates and the man gives a good account of himself. On the other hand, from one born on silk and satin, pampered and degenerated by excessive indulgence, saturated with inherited rot, you can expect nothing good.

The poor are too busy to give themselves up to bridge, balls, pink teas, and killing

feasts. It is true that the little ones go barefooted and roll in the gutter, but at the humble fireside they are folded into the bosom of a *real* mother, filled with unlimited affection. The motherly influence to make good men and good women is there, be there one child, or five, or more.

The law of the survival of the fittest does not cover the little ones of the rich, but it does operate among the poor, and the fittest in the struggle in a large number of instances reach the top notch. These very same little ones, with very few exceptions, more than justify their existence. Their family ties are stronger, their devotion to each other is greater, their social instinct of altruism is fostered. It is a common occurrence to see a whole family catering hysterically to the wants of a brother, sister or parent who has suddenly met with some misfortune.

Does it pay to have many children?

A little hard on the parent, maybe, but indispensable to the state.

In the process of evolution, hundreds, and thousands, of lives must be sacrificed for the sake of attaining perfection. In the process of natural selection, the discarded residue must of necessity be great.

The law of evolution destroys, and it creates, as it goes on. The product becomes finer, and finer, and ever finer.

Of the million lives brought into the world, thousands fulfil their cycle in obscurity, thousands become useful to the community, and only a few hundred emerge, endowed with the highest possible mental development. It is this handful, these hundreds, that constitute the naturally selected ones, and it is for these hundreds that other thousands upon thousands must be sacrificed. It is the toll that evolution exacts from humanity. And yet, truthfully speaking, these thousands are not really sacrificed, for they play their part in the cosmic laboratory, as they make up the humble pill-mass of mankind, of which these hundreds are the potent alkaloid.

The legalization for the dissemination of anticonceptional knowledge does not ring logical to me.

The trouble is, not an overabundance of poor children, but an overabundance of political, economic and social weakness.

It is against the present morbid social metabolism that your cannons must be directed.

A community that permits the existence of two extreme opposing classes, one choking with wealth, the other choking with polluted air in a twenty-family tenement house, needs to have the searchlight of common sense directed upon it.

The investigation into causes that lead to extreme wealth on the one hand, and to extreme poverty on the other, will elucidate a great many problems that bother the poor heads of some social reformers.

Zelly A. Bonoff.

New Haven, Conn.

THE LIMITATION OF OFFSPRING

Dr. William J. Robinson's dissertation upon the limitation of offspring touches the greatest question of modern civilization with respect to the happiness and physical welfare of the human race. The problem involved is the chit and the tap-root of all that is physically good for mankind. But Dr. Robinson's almost total ignorance of the subject is so grossly manifest that it is fearful to contemplate. The Doctor limits himself to ocular impressions and manifestations, instead of going to the root of the subject and the real causes of the physical deterioration of a nation. I will be brief.

First: The limitation of offspring has emphatically nothing to do with the subject.

Second: Sometimes large families are delicate and short-lived.

Third: The children of most of our small families are delicate and short-lived, especially among the wealthy and among the hard brain-workers. There is a fundamental reason for this.

Fourth: Most of our great men, sturdy pioneers and long-lived people came from large and poor families. But this proves nothing.

Fifth: I knew a family of eight boys, apparently healthy-looking. The eight boys

died within eight years, between the ages of 20 and 30, of consumption. The parents, still living, were never sick, and are now about 75 years old. What was the reason? The two were not adjusted to each other to raise long-lived children.

Sixth: The knowledge to make the human being with a good constitution, and how not to abuse it, is the whole subject in a nutshell. To do this, we must begin at the beginning of things. *How things make things make themselves.*

Seventh: To perpetuate a good constitution, father and mother must be adapted to each other by nature. In other words, to raise a long-lived crop of children, the seed and soil must be adapted to each other and also be of good quality.

Eighth: Every human being, by this law of nature, receives a definite constitution, and each by virtue of this constitution acts and exists for a certain length of time. All things equal. The rose-bush, from its definite constitution, is limited to a life of a few years. The oak-tree, under the same environment, will live hundreds of years—the difference being in their constitution.

Ninth: All human beings are made up of the same elements, but the difference in their proportions and complexity and balance of one part to the other determines the possible length of life of each individual.

Tenth: The proofs can be presented that large families are healthier and longer-lived than small families, if father and mother are by nature adapted to each other. Small families and delicate children are usually the result of inadaptability and the *abuse of the sexual and social laws.*

Eleventh: How many of us can look our children in the face and not see our ignorance and infamy printed upon them?

Twelfth: The possibility of a long life depends absolutely upon heredity, and, then, to live within the *capacity* of his own make-up or constitution.

Thirteenth: To be married right, we must be married by nature, and not by social or statute laws. No justice or minister can marry any man or woman correctly. This is the only remedy to prevent divorce. Man and woman married by nature wil become more and more strongly attached to each other as years go by.

Fourteenth: Our constitutional diseases are due to heredity and our acts. The zymotic diseases are due to environment and our acts. Never before was medical science so far away from the truth of etiology as in the last quarter of a century. It studies the visible facts and assumes the cause of those facts instead of going to the bottom of things.

Fifteenth: Consumption stands at the head of our heredity and constitutional diseases. The germ theory of its causation is the greatest fallacy ever invented by human brains. Oh, Heredity! Oh, Heredity! for a good constitution and fairly good environment afterward! In short, make the babies right. Large families for this are more favorable than small ones.

Sixteenth: To make all these statements clear would take several long articles, but your request was, to be brief.

M. J. Rodermund.

Madison, Wis.

REGULATION—NOT LIMITATION—OF REPRODUCTION

Of all subjects, this one of reproduction needs the attention both of profession and public. There may be as many opinions as view-points, but all must ultimately become subservient to sound biological principles. The present-day conditions of society must be harmonized with the immutable laws of nature.

The issue seems to be, quality, not quantity, of the population. We fail to see how mere limitation of numbers will in any way improve the quality. Fecundity is increased by adverse, and retarded by favorable circumstances, within certain limits.

Take a patch of clover, mow and water frequently, and it never goes to seed. Make the environment adverse. Withhold the water, mow as close as you will, yet in a very short time you will see the blossoms almost at the roots. We fail to see how cutting out one-half of these blossoms will in any way improve the other half. We do see how favorable circum-

stances plus elimination of the unfit does improve the stock, but having done so, why limit the numbers? If one American is better than four Chinamen, why are not four Americans of the same grade four times as good?

Elimination of the unfit for the benefit of the fit, and without interference with natural selection, is the real issue, rather than limitation. We do not believe in the indiscriminate many of the poor, nor the pampered few of the rich, with physical degeneracy in the former and mental degeneracy in the latter—but of the two, the former is much the more hopeful.

Many individuals of every class never were constituted to become satisfactory husbands, wives or parents. All the women who dread maternity and resort to every means to prevent or to destroy conception belong to this class. They are not vicious or wicked. There is something wrong in their evolution, the continuation of which nature is trying to arrest because unable to compensate for our swift degenerate pace.

It is useless to blame economic conditions. Were women ever better taken care of than now? Is there any country on earth where they are as well taken care of? Our general prosperity never was greater, and poverty never stood in the way of a woman who wanted children. Are not the very women financially most able to raise a family usually least willing to do so? If Dr. Robinson can teach *those* women, poor or rich, how to avoid pregnancy—well and good, for *their kind are not wanted* by nature, by themselves, nor by the nation.

We do not believe in the doctrine of "total depravity." It is a lie! Were it so, we never could have advanced. We do not believe this knowledge of how to prevent pregnancy would do any harm, nor do we believe that any *satisfactory* method has been discovered. But should a large class of people resort to promiscuous intercourse on account of it, then indeed it only bears out the argument that they are unfit to propagate the race—their promiscuity would do less harm than their respectably raising of degenerate progeny would do.

It is a shameful reflection on humanity to say that the virtue of women is but the fear of pregnancy and venereal diseases. Were the superstition of the "divinity of maternity" removed from our minds and marriage laws wiped from our statute books, we should still have homes and babies—homes founded on love and sincerity, rather than on law, superstition and hypocrisy. Let us remember that we can aid nature, but not improve on it. Religion, morals, and law all have failed, because they have lacked the essential principle of advancement, namely, self-interest.

In some states we sterilize the criminal and insane. Why not sterilize the unfit who produce them? Would not the economic saving in penitentiaries, reformatories, asylums, hospitals and poorhouses more than pension fit parents?

C. W. Crompton,
Chief Surg., Ticton Project, U. S. R. S.
North Yakima, Wash.

BIG FAMILIES AND LOW WAGES

I have just finished the article by Robinson, in the June number of Clinical Medicine. On page 592 he says: "It [excessive childbirth] is one of the greatest causes of low wages." Mr. Chairman, I arise for information.

How does he connect large families with low wages? Does the boss say to one, "How many?"

"Ten."

"Then you get only $1.25 per day."

To another, "How many?"

"Four," says the man.

"Then you get $2.00."

Is that it?

How does Robinson connect large families and idleness? When the man answers "Ten," does the boss say, "Then I do not want you. Go hang"?

I am here on the floor, Mr. Chairman, to tell you that Dr. W. J. Robinson has slipped his trolley, and has not come within one whole mile of a solution of the problem, if his reasoning is the same all the way through. That is my opinion of his article.

Tell the people? They know how now. Any old woman who wants to can tell the newly-wed how to escape conception. And after it has been accomplished, every town has its "helper." Come, get on higher ground, Dr. Robinson, and get in touch with life once more.

J. F. Roemer.

Waukegan, Ill.

RACE CULTURE

I have just read "The Limitation of Offspring" by Dr. William J. Robinson, June Clinical Medicine, and will say that I fully agree with Dr. Robinson in everything he advocates in this article. If we had more men like Dr. Robinson the human race would soon be improved. Dr. Robinson's views are so far in advance of the day that they can be appreciated only by those who have given this subject much attention.

It is the undesirable that increase the most rapidly. They bring children into the world diseased mentally and physically, raise them in a haphazard way, and turn them loose on the public, immoral, ignorant and without means of support. No farmer would raise hogs in such a manner. It is not the quantity but the quality we should consider in all things.

J. A. Burnett.

Marble City, Okla.

DR. ROBINSON'S ARTICLE

You invite comment on Dr. Robinson's paper. I cannot understand why you expect a storm of protest. It seems to me that any man who *thinks*, and is a real physician, not merely a doctor, cannot help but endorse it.

Personally I never hesitate to give my patients instruction how to avoid pregnancy when it is evident that they have family enough. In so doing, I realize it means financial loss at a time when I need the money, for I still have the debt for my medical training to pay, but that does not deter me. The people who howl about race suicide may be political reformers, or think they are, but true reformers, social reformers, must agree with Dr. Robinson.

An article appeared in Clinical Medicine a few months ago in which the author sought to justify abortion, which should have met with criticism, but I do not remember seeing any. Dr. Robinson's paper ought to stimulate intelligent thought and action—the world needs it.

H. L. H.

——, New Jersey.

[The article referred to did meet with most vigorous criticism on the part of several contributors.—Ed.]

ANOTHER VIEWPOINT

I am much interested in the June number of Clinical Medicine. Its editorials are superb.

I have just finished Dr. Robinson's article on "The Limitation of Offspring." You will recollect that your viewpoint is subject to many changes. Before you became a *family man* you did not have any settled convictions on the offspring question, and your viewpoint has undergone some changes as you grow older and wiser.

I have watched the "big-family man," and also the couples who were determined to be childless, and I have tried to learn which were the happier or best people, and from long and close observation I believe in the "big-family" man. He is not a dodger, but having a natural and self-imposed duty, he "faces the music" like a man and blesses his kind by putting something into life, instead of "playing the sponge."

The man who is unwilling to supply his own place, and therefore leave the world unpeopled, is not entitled to the blessing of existence. He wants something for nothing, and is therefore dishonest. Our troubles are not because there are too many of us, but because there are "too few of the right kind."

"The people who think unusual thoughts" deserve no more credit than those who think ordinary thoughts. Man thinks because of his surroundings. These latter are already furnished, not by himself, but

by others. Man is a creature of circumstance notwithstanding Mr. William Ernest Henley. From Henley's viewpoint, every man is captain of his own soul. From my viewpoint, nothing is more false or misleading. If this viewpoint of Henley's were true, there would be no real trouble.

It is not so much what a man knows as the uses to which he puts his knowledge, and you never know what use a man will make of his knowledge until after its use.

So with the conception question: From the experience of the past, many people would destroy their offspring if they only knew how and were sure that they would not be detected. Whether an individual has the moral right to do this is not for me to say, but from my viewpoint he has not. I am foolish and sufficiently "childish" enough to believe that there is a God, a Creator, and that the destiny of the human family is in His hands; and that all the unusual-thinking of mankind will not alter this (from my viewpoint) fact.

If this viewpoint is wrong, and there is no one at the helm, and the whole affair is a matter of chance, depending largely upon the people who think unusual thoughts, who are here today and gone tomorrow, it does not matter whose viewpoint is correct or false; nor does it matter whether one is foolish or wise, virtuous or vicious, single or married, with a large family or none at all, the whole fabric, having no foundation, is sure to go to pieces—from my viewpoint!

W. P. Howle.

Charleston, Mo.

BEGINNING OF A NEW ERA

I deem the article of Dr. Robinson the beginning of a new era for the uplifting of the human race.

Of course it will cause a fight, as every effort to free ourselves from the dead past has done; but let the fight come, for publicity is what enthrones right.

I have looked upon Indiana's plan of "denaturing the unfit" with great favor, and Dr. Robinson's article is in line, and a booster from the bottom. When law and practice become villainously outrageous human nature rebels, and sooner or later reform follows.

In Bible times the Jews desired large families in order to be able to defend themselves, or take what the other fellow had, as the case might demand; but now we are hoping for universal peace, and desire to stop raising children merely to kill and be killed, and prefer to turn our attention to bettering the quality of our progeny, the same as we do of our cattle and hogs.

When the articles are concluded would it not be well to have reprints enough prepared to furnish a copy to every physician in the country? If this is done, I will send you a dollar in aid of publicity.

U. N. Mellette.

Holdenville, Okla.

THE PREVENTION OF CONCEPTION

As there undoubtedly will be many replies to Dr. Robinson's paper on the "Limitation of Offspring," I briefly bring up a few points that may not be alluded to by others.

The commandment, "Thou shalt not commit adultery," as interpreted by some biblical scholars, means that sexual intercourse should be indulged in only for the purpose of reproduction (which is the case with females of lower animals), never for gratification, and that it is lust, sin and adultery under other conditions. If such be true and if it were generally carried out, the question would be solved. If that be the correct interpretation, then the chief violators of that law are married couples, and few there be who have not violated it.

If it be not a sin, or adultery, to indulge in sexual intercourse for gratification alone, is it then a sin to take measures to prevent conception? Does the command, to "multiply," mean reproduction to the extent of becoming overburdened with offspring?

Is prevention of conception a violation of the commandment "Thou shalt not kill"? Murder can not be committed unless there be life, and there can not be life present until after there has been union and fecundation of spermatozoon and

of ovum. If these two essential forces be prevented from uniting, or either of them be made sterile, there will be no life nor growth, so it cannot be called murder. If nature always permitted the two essential forces to unite, the world would soon be overpopulated and limitation of offspring would have been made compulsory long ago. Had the subject been agitated a century ago, probably it might be sanctioned now.

I know of many instances where mothers have pleaded with physicians to produce abortion, claiming that they already had more children than they could provide for, and they threatened to take poison before they would give birth to another child. I am not an advocate of abortion, but I do believe that parents should have some say as to the number of their offspring; and have some sexual pleasure without being worried to death afterward.

It is also my belief that many women allow themselves to become pregnant who do not desire offspring, not from ignorance of the means of prevention or from lack of handy measures, but because of loss of control over their feelings from the excitement and overindulgence, and that pregnancy occurs before the excitement and indifference to results has worn off. Such, when it is too late, would move heaven and earth to bring on abortion and probably become indignant when the physician to whom they appeal for aid refuses to risk disgrace, ruin, and imprisonment for their sake.

C. F. Souder.

Philadelphia, Pa.

"LIMITATION OF OFFSPRING" AND OTHER THINGS FROM THE JUNE "CLINIC"

The problem of race suicide, or limiting offspring, like many other social conditions that have troubled the world from time to time since the dawn of history, is as far, today, from a rational solution, perhaps, as at the beginning—and that was undoubtedly countless centuries gone by. But, out of our twentieth-century arrogance comes a belief, a confidence, that we are better equipped or qualified to handle it than preceding ages have done, and it may be forgetfulness of, if not contempt for, precedents, that is responsible for what we believe to be our superior condition today. Although, let us keep in mind that famous biblical aphorism, "Nothing is new under the sun."

Some fine reading is furnished us on this subject in your last number—indeed, some real high-toned literature upon this very important topic. The conclusive argument, while probably not axiomatic, is certainly comprehensive enough to convince. With my hat off to you, Mr. Editor and Dr. Robinson, permit me to ask you both one question, which I trust you may see pertinent enough to answer; and it is this: Is there any law, or can there be any law made—statutory, medical or social—that ever will successfully abolish or abrogate the inherent natural rights existing amicably between husband and wife?

* * *

Who said, "Therapeutic nihilism"? I'll bet that any advocate of that fad, if not already so, can readily be persuaded to "Christian science." Has it ever been thoroughly understood whether or not these faith-curists could be correctly styled a kind of therapeutists, since they claim so loudly to be curing disease? A closer and more scientific study and a better practical knowledge of materia medica will usually eliminate most of such conceits. But what's the use? They would develop crankiness in that or fall into something worse, as there is no middle ground for a nihilist.

* * *

The underlying theme of rational medicine—the unwritten or unspoken purpose of every good medical author, editor, teacher and practitioner—is to inculcate the spirit of "dare," to use anything best for the afflicted, come it from any source whatever, be it ology, pathy, ism, cism, or what not, so long as it proves itself best for conditions at hand. The law of creeds (schools) in medicine is vastly more detestible than they can be in true religion, because the one has to do with life

of the body which we see and realize, the other with the soul, which is unseen. This brings to mind that almost inconceivable epoch in the future when the medical profession are united universally in one common army, arrayed against disease and the devil. So long as creeds are tolerated in our profession—and we who, of all other vocations, should not be split up into sects and schools—just so long will we be "chewing the rag" and "throwing mud" at each other, and just so long will sensible people doubt any of us some times upon anything. And who could blame them?

* * *

"The druggist's demand." That the pharmacist (too often called druggist) should not prescribe medicines to patients, cannot be any reason why the physician (*the* doctor) should not carry with him and prescribe for his own patients, because that is, in fact, the true intention and purpose of his mission. The pharmacist is quite a modern creature as compared with the physician and his only hope to make famous, or very significant his useful cult depends entirely upon the devotedness and faithfulness maintained by him to the true principles of his calling or profession.

On the other hand, the doctor who sells himself into commercialism; establishes himself a drugstore in a city; tries to do an active practice, both in and out; writing and filling his own prescriptions in competition with straightforward physicians in the same place; carries any kind of patent dope in stock and sells it if he doesn't recommend it; and all this done in a spirit of greed for gold, far away from his avowed purpose—"I do it as the only way to get pure drugs"—such an individual, I say, deserves no place in the ranks of reputable physicians.

Then, again, the doctor who has not with him medicines or means to relieve the sick when called is sure to be tabooed by the uninformed, if not by all, eventually. Who would think of a doctor going to visit the sick with no means of relief except a prescription pad, pencil, and a thermometer! While he cannot carry with him all that may be required every time, he can go fairly well armed for the majority of acute ailments, since the happy tendency of medicine is toward concentrations and alkaloids.

* * *

Every article in your June number was a hummer. Not an article in it that was not a live wire; from "Posthumous Honors" to "Query 5712." Even the advertisements wore the refreshing look of nature after a spring shower. Keep at it. Make it bigger and better; adding, if necessary, new departments, as intimated; voluminousness is no objection when stale "padding" is left out. Fascination of subject is a wonderful reducer of volume. Originality of thought, of method, of experience, of everything connected with a journal, if reasonable and brainy, is the best stock in the market of progress. "*Per aspera ad astra.*"

LEWIS W. SPRADLING.

Chattanooga, Tenn.

IS IT PELLAGRA?

Some ten days ago I was called to see a Mrs. G., and I found the following conditions: Diarrhea, bowels moving three to six times in twenty-four hours, passages being very thin, green, offensive. There was a sensation of burning in the stomach; appetite lacking; mouth congested, the buccal mucosa red and covered with small ulcerated areas; tongue fiery-red, the papillæ standing out prominently; ptyalism in the worst form imaginable; frequent expectoration of a tenaceous white, ropy saliva.

Her hands on the dorsal surfaces were a deep purplish-red color. They were covered with a hard, dry, cracked epidermis which was desquamating in dry bran-like scales, some of the plaques being very large, leaving only the corium. The line of demarcation was at the wrist-joints (where her sleeves end) and very distinctive. The eruption covers the backs of both hands and fingers, being symmetrical in distribution. Burning and itching were experienced.

Chin and nose were covered with a brown or brownish-green thickened skin,

which seemed to be spreading from either side of the nose toward the molar processes.

Other symptoms were lassitude, great depression of spirits, with melancholy predominating.

The patient is 62 years of age; mother of five children; had always been healthy; unusually good family history; descends from one of the best families of farmers in eastern Tennessee. She married a farmer some thirty years her senior, who died a year ago, after being confined to his bed, almost absolutely imbecile, for five years. This good and devoted woman nursed him like a baby, and as he voided his urine and feces unconsciously, she had to wash his clothing some six times daily, and to this she attributes her own disease.

We can exclude Indian corn as the cause of this case, as she has always lived away out in the country and raised lots of corn to sell, and had they had musty meal in their kitchen they would have given it to the pigs. The people of this neighborhood and their forebears have always been eating cornmeal; then, why at this late day should it produce such a fatal disease?

Up to this writing there is no amelioration of symptoms. Her temperature is normal, pulse about 90.

O. D. Miller.

Goin, Tenn.

[While we can not state positively that this is a case of pellagra, it certainly appears to be one, though it should be followed closely for a longer period. We want to urge Dr. Miller to read the editorial on pellagra in this issue. We hope that, following the suggestions of Drs. Pixley and Mizell, he will place this patient on the combined intestinal-antiseptic, alkaline and calcium-sulphide treatment, and report results.—Ed.]

IS PELLAGRA CAUSED BY RANCID FATS?

Case 1.—May 27, 1911. Mrs. I. M., age 25, white, mother of four children, last one born two years ago. Has had vertigo irregularly for seven or eight years; tinnitus aurium, one year; sore mouth and throat at times, two years; salivation at times, two years; costive her whole life, with occasional diarrhea; lumbar pains, several years; disordered vision (spots and blind spells), two years; confusion in intellect at times, one year; insomnia at times, two years; scanty, high-colored urine at times, and frequent dysuria, one year; pyrosis, for years. A year ago eruption on backs of forearms appeared. Was in the Columbia Hospital one month. Diagno is then and there, pellagra. Discharged, not improved. All of her life she ate "corn and bacon."

Case 2.—May 27, 1911. Mrs. W., white, age 27, married six years; multipara. Has been sick four years; irregular pains in abdomen and vagina; frequent dysuria; costive; sore mouth and throat; attacks of salivation; vertigo; blind spells; tinnitus aurium; pyrosis; short-breathed; pains in left shoulder through to left breast; lumbar and frontal pains; always cold; confusion in head; menses short and scanty, not much pain with them, and regular. Lived on "corn and bacon." No eruption characteristic of pellagra, but otherwise history is similar to that of Case 1.

Case 3.—Dec. 26, 1910. Mrs. R., white, age 35, six children. Came for conjunctivitis, both eyes. Inquiry elicited the following symptoms as having been present for "some time": Frontal and lumbar pains, bowels too loose, pyrosis, intestinal tympanites after eating, nausea, costive (usually), vomiting, dizzy, tinnitus aurium, lost flesh and strength. Hoping to convince the husband that she needed medical attention beyond what the eyes required, I told him that she was in a condition as often shown by pellagra. I saw no more of them. In May following, five months later, Dr. Buchanan, her attending physician, informed me that she had complete, typical pellagra, and expressed surprise that it could have been foreseen. She lived on "corn and bacon" until the abdominal distresses compelled her to abandon bacon and lard as articles of diet.

Case 4.—Feb. 21, 1911. J. W., half-white, half-black, age 20, single, farmer, "ill six months." Principal symptom, confusion in head and lapses of memory.

That is what he wished to consult me about. He had consulted other physicians, but with no benefit. Inquiry brought other symptoms to view, viz.: vertigo, frontal pains, tinnitus aurium, pyrosis, sore mouth and throat, costiveness, intestinal tympany after meals. He ate largely of bacon, lard, and nuts. Pulse, 60; temperature, 98.6° F. March 8 he appeared convalescent; discharged, May 3. Had felt so well, and medicine having been used up, he went back to his old diet, and in three weeks was as badly off as ever. Promised to abstain from hog and nuts hereafter. (June 3 he seems well. I think he will remain so if he minds his dietary instructions.)

Case 5.—May 9, 1911. Mr. B., white, cotton-mill hand; married. Pellagra, second attack, severely sick and weak. Ten to fifteen bloody mucopurulent stools in twenty-four hours. Frequent, severe pains through abdomen. Mouth, tongue, and throat raw. Very weak. One year ago pellagra eruption appeared on backs of forearms. He thinks it will reappear during the next few days, as arms feel to him as they did when it appeared before. For five years before pellagra in his case became "typical." He had at times, with increasing frequency and severity, vertigo, tinnitus aurium, disordered vision, pyrosis, sore throat and mouth, salivation, constipation with occasional attacks of diarrhea, lumbar pains. He lost flesh and strength, and was unable to keep warm during these southern winters.

Case 6, June 17, 1911. C. P., white negress, age 24, mother of six children. For a long time she has had, irregularly, frontal and lumbar pains, vertigo, tinnitus aurium, disordered vision, sore mouth and throat, pyrosis, smothering cardiac distresses, intestinal tympany after eating, constipation, salivation, diarrhea, has lost flesh and strength, has pain in left shoulder (under scapula). Skin on backs of forearms slightly scaly and rough. Dark rings around eyes appeared a few days ago for the first time in her life. If this is not typical pellagra, it will soon be so, I think, unless she obeys her dietary instructions. She has lived on "corn and bacon" and lard. Excepting this last case (which came under my care two days ago), all of these patients have recovered. She will recover if she obeys the doctor, I am convinced.

In a former "Clinical Study on Pellagra," I mentioned rancid fats and acids resulting therefrom as the cause of pellagra, as well as modifiers of the course of the disease. It seems to me to be a topic in which chemists will be of more value than microscopists. I regret that my knowledge either of chemistry or microscopy is too deficient to enable me to answer these questions myself, but have to depend upon the labors of others.

In an article by Dr. Naunyn of Strasburg, on "Glycosuria and Diabetes," I find the statement that "oxybutyric acid may be excreted in amounts above 100 Grams in twenty-four hours." He is the only medical gentleman, so far as I know, who, in his work, has been able to find varieties of butyric acid, measure the amounts found in the body, and show their influence in the symptoms appearing in the disease. I am not without hope that others will be able to settle these vexing questions.

To me, ample evidence has come to settle, in my mind, the cause and cure of pellagra, but I am always ready to change my opinions. ("Corn and bacon": the corn bread is "sopped in melted lard and eaten. Almost all vegetables are boiled with "fat-back" or "side" pieces, and are eaten saturated with grease.) The amount of fat eaten in a day is unknown, but it must far exceed the quantity allowable in a balanced ration. Rancid fat is a common article of diet; and fat may become rancid after ingestion.

In the care of these cases, corn was allowed as an article of diet. The principal dietary restrictions were made on fats, and directions given to insure that the "fats" which were eaten were speedily emulsified and removed from the digestive canal.

These cases are selected from a number as best illustrating the advent of pellagra. The experiences of Dr. Reiss of Berlin must have been similar to mine. He calls pel-

lagra the "vagrant's disease"—produced by deprivations of all kinds.

Since the "trusts" began the manipulation of foods, others than "vagrants" have had to submit to deprivations of many kinds, and this influence in making a nation of pellagrines is, to me, tremendously marked.

The cure of pellagra, when it is regarded as the final stage of processes in the body due to chronic intoxication by rancid fats, is easy, but the consideration of resulting degenerations of liver, pancreas, heart, brain, and spinal cord, in long-standing cases, is another proposition.

C. S. PIXLEY.

Winnsboro, S. C.

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[This article is of peculiar interest and should be read in connection with the editorial, in this issue, on a similar subject. The corn-theory seems to be losing ground. Dr. Pixley's theory is an ingenious and plausible one and deserves careful study.—ED.]

DON'T ASK ROBINSON

Dr. Robinson's son writes us (the Doctor himself is now in Europe) that within five days he has received more than one hundred letters from physicians relative to the article on "The Limitation of Offspring," many of these asking for information concerning the means of prevention of conception. Dr. Robinson wishes us to explain that under no circumstances can he give this information. To give it is forbidden by law, and while he believes the law itself is wrong, unjust, yet every physician should adhere to it rigidly. As it was impossible on the eve of his European trip to answer each one of these letters individually he asks that this explanation be accepted in lieu thereof.

GELSEMIUM FOR TETANUS

About four or five years ago I read in some of our leading medical journals of some Chicago physician who had cured four desperately bad cases of tetanus with massive doses of gelsemium, given at short intervals and kept up for a long time. Each of these patients had been given an enormous quantity of the antitetanus serum without responding to it at all, and they were all apparently in a hopeless condition when the gelsemium treatment was begun. To the best of my recollection, the fluid extract was the preparation used. The doctor gave the remedy in dram and half-dram doses, for a long time, using from a pound to a pound and a half for each patient.

I have watched the journals closely for a long time, to see whether I could read of any other doctor using gelsemium for tetanus, but found nothing until lately, when I got hold of an account of an eclectic—a St. Louis physician—who reports that he has seen a large number of cases in his own and other doctors' practice cured of tetanus by gelsemium. Now let us look this up.

Theoretically, gelsemium ought to be a direct antagonist of tetanus by its physiologic action. I have no experience with genuine tetanus, but I know by the results what a prompt and permanent stop it will put to pseudotetanoid convulsions of hysteric origin.

WM. M. GREGORY.

Berea, O.

"ALL BELONG TO THE SAME LODGE"

If my veins were filled with ice-water, instead of red blood, I might let pass without notice the results brought by my little letter to your journal. ("Why I Come Back to the Fold," page 666, June issue.) I have received letters from almost every part of the United States, letters which inspire hope and courage, and make one feel like buckling down to work. I believe I have had not more than two or three events in my life that gave me as great joy as this has. A peculiar thing is, that so many of the doctors wrote as if they had known me for years. It seems as if they feel that THE CLINIC readers all belong to the same lodge, or, better still, the same family. As I heard an old lady say, "Lordy, I feel good."

F. A. LONG.

Valier, Mont.

[Last month, in the editorial pages, we urged "everybody" to go through the pages of CLINICAL MEDICINE, marking carefully the things which they approve or disapprove, and then to write to the contributors and tell them just how they feel about their articles. A word of criticism, here and there, indited in a friendly spirit, or, better still, a few sentences of praise, will surely bring forth just such response as this letter from Dr. Long. And this response, coming right from the heart, does us all good.

Right here is where we brag a little: *We* don't believe there is a journal published which is read as closely (including the advertising pages) as CLINICAL MEDICINE. Proof? The hundreds of letters which our contributors receive from their fellow-members of the "family"—that "same lodge" of mutual helpfulness and good cheer to which we all belong.—ED.]

FAR-REACHING INFLUENCE OF "CLINICAL MEDICINE"

I have had nearly 400 inquiries to answer since my article on "Vibratory Treatment" (p. 69) was published by you. I think that this certainly indicates the far-reaching influence of THE CLINIC. Don't you?

CHAS. A. S. SIMS.

Kansas City, Mo.

THE TRANSMISSION OF TYPHOID FEVER

In a lecture delivered, some months ago, before the Academy of Medicine of Paris, Dr. Kelsch made the statement (*Wien. Med. Woch.*, 1910, col. 1415) that two different modes of infection with typhoid bacilli are possible, the one being the direct transmission of the bacilli from patients to healthy persons, the other, the development of the disease by autogenesis. In the latter mode of infection the bacteria, which are present in the body in but slightly virulent form or even only as saprophytes, experience a considerable increase in virulence.

Dr. Vincent, at the same session, pointed out that careful attention to pure drinking water has reduced although not abolished the mortality from typhoid fever. Other vehicles that carry infection, especially food-stuffs, must be considered. Healthy bacillus carriers may sometimes be the source of infection, in fact, Louis has found typhoid bacilli in the blood of healthy persons who had never had the disease. The bacilli are mostly transmitted by soiled hands.

Dr. Remlinger, at a later meeting of the Société de biologie of Paris, called attention to the not generally known fact that typhoid infection may be transmitted during coitus, especially on the part of women. He made the assertion that four-fifths of all chronic bacillus carriers are women.

THE PROPHYLAXIS OF TYPHOID FEVER

Rommeler relates, in the *Münchener Medizinische Wochenschrift* for May 3, 1910, a striking instance of the dissemination of typhoid fever through an infant, which shows the importance of exercising great care in the prophylaxis of this disorder. It has repeatedly been shown that children may distribute typhoid infection because in them the symptoms of the disease may be but slight and not very well marked, so that they are not isolated. The case in question is as follows:

A young woman who had been ailing for one week was taken to the hospital, where a diagnosis of typhoid was made, roseola and splenic enlargement having occurred meanwhile. Her baby boy of about eighteen months of age had been nursed by her until her removal to the hospital and was then taken care of by friends. As the infant was thus suddenly weaned, a slight diarrhea occurring was not considered of importance.

About two weeks later the woman who was taking care of the baby fell ill with typhoid fever, and after another week her daughter, age six years, and a niece, age three years, who came daily into the house to play, came down. Still two weeks later the own baby of the foster mother and another daughter, fifteen years old, were attacked, and so a relative, a girl of twenty, was called in to take care of the patients. he also acquired the disease and died on the sixth day,

The nursling who thus infected an entire family after six weeks showed only a faintly positive Widal reaction, and in his feces typhoid bacilli were found in only two out of eleven examinations. From this it appears incumbent upon physicians to isolate nursing infants of women ill with typhoid fever, together with their mothers, or at least to take every precaution to avoid a spread of the infection from them.

A DIAGNOSIS APPROVED

In regard to "An Obscure Case, Possibly Typhoid Fever," in June CLINICAL MEDICINE, let me call your attention to the marked similarity of this case with case No. 231 in Cabot's "Differential Diagnosis." Dr. Butler's diagnosis also agrees with that of Cabot in his case.

I may say, aside, that this book of Cabot's has been the most beneficial to me of any that I have seen lately.

R. DEAN TOMPKINS.

Jasper, Fla.

TYPHOID FEVER AND INTESTINAL ANTISEPSIS

The typhoid-fever season is again at hand, and a few cases have already been reported. This is an old subject and all sorts of treatments have been exploited, with the resulting waste of many valuable lives. While in hospital practice, under orders of my superiors, I have been the indirect cause of many deaths, particularly through the Brand baths. In private practice I have never lost a patient—and not because I have not had better than the average number of cases. Had at one time 26 cases in a radius of six miles, with few nurses, and in some instances all but one of the family being down at once.

In typhoid fever, the old "rule of three"—clean out, clean up, keep clean—is the only rule necessary to keep in sight; and don't overlook the importance of the sulphocarbolates. Don't expect too much from one dose, but double the dose and give twice as often as directed, if results do not follow promptly. I have given two 5-grain tablets an hour for two days, and should not hesitate to give more; but if your clean-out rule is faithfully carried out, it will not be necessary to give larger doses. I believe that typhoid-fever patients have a special tolerance for the sulphocarbolates, as I have never seen nausea following their use during the course of this disease, while they will excite nausea in some other conditions.

One other point I wish to emphasize is: Don't give quinine unless you are sure you have malaria as a complication.

E. E. FLAGG.

Perry, Okla.

HINT ON THE TREATMENT OF DISEASES OF THE INTESTINES

Every physician who will closely investigate headaches, gastritis, nervous diseases, and inorganic heart troubles will be astonished at the amount of human suffering which may be traced to an intestinal origin. Every physician who will investigate the cause of the diarrheas, cholera infantum, chronic intestinal indigestion, enterocolitis (acute or chronic), tuberculous enteritis, appendicitis, colic, constipation, intestinal obstruction, intussusception, and other disorders of the intestines, will be astonished to find that the cause itself may be removed by proper dieting and antiseptic treatment.

We know that many diseases of the intestines are caused by some forms of microorganism; we know that many diseases of the intestines are caused by the ingestion of too much starchy foods; we know that starchy foods are digested in the intestines. How many physicians knowing these facts are stuffing their patients (afflicted with intestinal trouble) with vegetable foods (when, in fact, they should be eating animal foods) and using antiseptic intestinal treatment, and are not getting results? Cut out the vegetable food, sugar and acids, and you are a winner.

CHARLES GERRISH.

Gray, N. Y.

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[Isn't the doctor just a little too sweeping? The starchy foods give rise to fer-

mentation, and thus to the disorders that naturally follow; but the proteid foods may, through putrefactive changes, cause toxemias of the severest kind, from the milk poisoning (cholera infantum) of the infant to the ptomaine poisoning (cholera morbus) of the adult. Simplicity, frugality, a proper "balance," and the use of nonirritating substances as foods seem of primary importance.—Ed.]

CALCIUM SULPHIDE IN TYPHOID FEVER. MEXICO

On page 550, Clinical Medicine for May, Dr. James H. Bristow of Portland, Oregon, relates his experience with calcium sulphide in some cases of typhoid fever. This is one of my pet remedies. I use it in all sorts of infections, from smallpox to a festered abrasion of the skin. I have many disappointments with it, of course, but more success than with any other drug recommended for the same purposes. I have used it in a considerable number of typhoid-fever cases. I don't expect any astonishingly wonderful results from its use in this disease, so many cases are typhoid; plus one to a dozen other things.

In addition to any direct effect calcium sulphide may have upon the typhoid infection, it helps put the patient in the best possible condition to stand the long siege of illness. Give from 16 to 24 grains during the twenty-four hours for a week or ten days, but leave it off when the patient begins to lose weight rapidly, for it is classed with the flesh-reducing drugs. In some cases, sodium hyposulphite is a valuable congener. Give your patient two drams of the latter in twenty-four hours, or even more, up to a dram every four hours, as a cleanser. This should not be continued nearly to the hemorrhage period.

I am sure that much of the calcium sulphide on the market is worthless. Even if made by a reliable manufacturer, it is said to deteriorate rapidly. I should like very much to know how to keep it, so it will not lose its activity. For the past year, I have been using the double sulphide of calcium and magnesium and think the results are even more positive.

In the same number of Clinical Medicine, Dr. Robert Gray of Pichucalco, Mexico, has an intensely interesting article on that country. I have lived there. His description is splendid. Since Dr. Gray's article was written, the Diaz regime has ceased to be. Unless the new control is iron-handed, the progress made during the past forty years will come to nothing. Revolutions and counter revolutions will be the order. The masses are of a very low order, a rapidly dying race, and to offset the dying, they are trying to preserve the remainder in alcohol. But what a country, if only a different people were there!

H. C. Sanders.

Selmer, Tenn.

[The best way to prescribe calcium sulphide is in granule form. Thus prepared, providing a good quality of the drug is used in the preparation of the granules, a thoroughly reliable product is assured, since in this form it keeps almost indefinitely, the thin pellicle of sugar-coat preserving it most effectively. We can "second" all that Dr. Sanders says in praise of this remedy.

In typhoid fever we have long depended mainly upon the intestinal antiseptics, supplemented of course by other indicated remedies, such as calcium sulphide for the general infection, laxative salines to clear out the alimentary canal, aconitine, supported by strychnine arsenate and digitalin, to restore vascular equilibrium, if the temperature runs high, turpentine for tympanites, gelseminine for delirium, cool bathing for hyperthermia and as a nerve toner, and a simple, lactic-acid producing diet—buttermilk.

A number of readers of Clinical Medicine have written appreciatively of Dr. Gray's fine paper on Mexico.—Ed.]

FITS, AND A FOUL INTESTINAL TRACT

"I think the greatest surprise of my life was the use of a common remedy in curing what seemed to be serious nervous trouble in a young boy. He would become nervous and apparently lose his senses—would wander around the house, fall over the

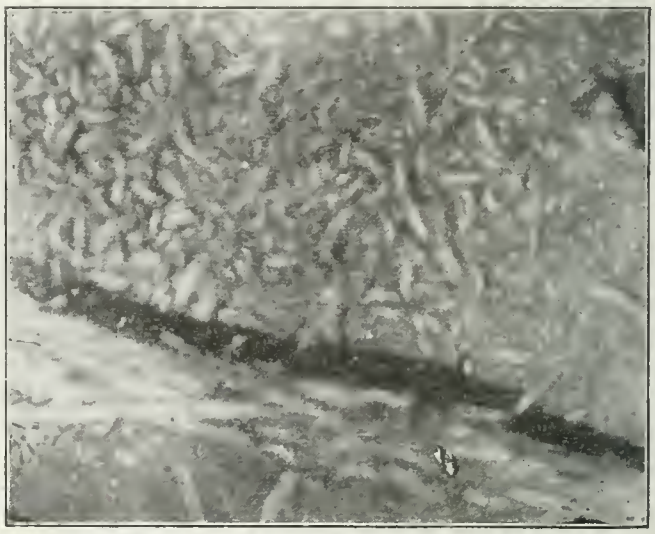
stove or into the cistern, run against the window and tumble over chairs, and possibly fall down in a fit. He was treated by almost every doctor in the community, with no relief whatever. I was driving past the home one cold December day, and as the boy was having one of his 'spells,' they called me in. He had been under my care some months before for a short time only. The parents became discouraged, and he had had no medicine for several days. The poor fellow was lying on the floor near the kitchen stove, where he had fallen down after wandering incoherently around the house. He was sweating profusely and was in a deep sleep. As he aroused, I noticed his breath was sour and his tongue coated, and I concluded to treat these conditions and leave the general nervous symptoms alone.

"I gave the boy calomel and soda freely until his bowels moved, and large doses of lactopeptine were given, first every three hours, then one before meals, one after meals, and two or three hours later. In three days the father came after some more of those powders and pellets. I gave him quite a liberal supply of lactopeptine and the calomel and soda at night. When the supply was exhausted, the father came in and said: 'Doctor, you are curing that boy; he has not had a fit since he began these powders.' I continued the treatment and the boy has never had another paroxysm. This is a simple case, but it illustrates how easy it is to make a mistake and how common it is to meet with surprises, which, if properly accepted, should prove exceedingly instructive in the future."

We have taken this report of Dr. Campbell's (of Clinton, Ia.), from *The Medical Summary* for December, 1910, for the important lesson it contains. We see such cases frequently, and all too often overlook that all the patients need is a thorough cleaning out, because the nervous system is irritated beyond endurance by the toxins accumulated in the circulation and deposited in the tissues. Although we should have handled the case a little differently, the principle of treatment would have been the same: *Clean out, clean up, keep clean.* The calomel cleanout, followed by laxative salines and the sulphocarbolates, will do wonders.

WAR ON THE FLY NUISANCE

All over the American continent we are now in the throes of a national "Swat the Fly" campaign. From Portland, Maine, to Portland, Oregon, and from Chicago to



Each of these "worms" is a future fly

"San Antone" the slogan is being sounded. In Texas, Fort Worth announces that five million flies have been captured through the agency of patent flytraps, while a San Antonio newspaper is offering prizes to the schoolchildren who bring in the largest number of fly "scalps." The American Civic Association has issued 100,000 copies of a pamphlet, telling how to "Kill Flies and Save Life." and everywhere the newspapers are printing simple directions about fly exterminators and how to use them.

Our friend Dr. R. Menger of San Antonio, Texas, has sent us some excerpts of articles published by him in recent local papers. Among other things he says:

"There exist in all communities, and outside of these, two main types of pestiferous flies—the common housefly and the socalled blowfly—or "dumpingfly", as they dump myriads of eggs on decaying and offensive material, as well as on meat of all kinds. Both of these fly species are a great public nuisance, for various reasons. Both of them can be kept outside of dwellings by properly screening the houses, stables, etc. The call is to exterminate

them—kill as many as possible, as thereby millions of offspring will not exist in the near future, which would perhaps molest you or contaminate your food-articles or transmit disease germs directly."

We are reproducing herewith some pictures sent us by Dr. Merger.

As to the methods of destroying flies, the following, taken from a popular pamphlet, is of some interest:

"A cheap and reliable fly poison which is not dangerous to human life is bichromate of potassium in solution. Dissolve one dram in two ounces of water; add a little sugar and place about the house in shallow dishes. To clear rooms of flies, use carbolic acid, heating a shovel and pouring on it twenty drops of the poison. The vapor will kill the flies. Another method: Burn pyre-

Two stable-flies—one dissected showing larvae

thrum powder in the room. The flies will fall to the floor stupefied and may be swept up and burned. The powder should be moistened and molded into cones and, after drying, each cone should be placed upon a dish and lighted at the top. It will burn slowly and the odor is most disagreeable."

Perhaps our ardent "swatters" need to bear in mind the warning of Commissioner Young, of the Chicago Health Department, who points out the important fact that the fly nuisance can be largely prevented by such a simple means as mere cleanliness. If the streets, stables, markets, and house and its surroundings are kept free from dirt, and screens are used, we shall not need to worry much about flies.

A fly-bat should be in every room. Where not purchasable, they can readily be made, with a little ingenuity, from a piece of wire screening. Not everybody understands that these "swats" "get" the flies because they do not create a draft to warn the wary "critter."

THE FLY PICTURES

The photo illustration, on this page, of two stable-flies shows one with opened abdomen and numbers of the larvæ or "maggots." All of the latter were alive and crawling, but were made motionless, for photo reproduction, with a few drops of chloroform. Some of the larvæ are seen along the thoracic parts of the fly, where they had crawled.

The view was taken with an extra-near focusing lens, showing both flies magnified several times. This illustration proves that some species of these flies are viviparous during the extreme hot weather. (The photograph was taken last summer, end of July, about the time of writing these notes.) I had previously put one of these flies in a small and thin glass, and it was observed how the fly deposited the living larvæ, which soon crawled around the interior of the glass. As a rule, however, most species of flies deposit premature ova and sooner or later, according to temperature and other environments, these are developed into the larva and pupa states. Both of these flies, I may state, when captured on a window pane, were quite large and the abdomen distended, and one deposited living worms shortly after being put into the small glass.

R. Menger.

San Antonio, Tex.

WHISKY IN SUNSTROKE AND IN HEAT-EXHAUSTION

In the current number of your journal, in an article headed "Whisky as a Life Saver—Sunstroke," you put a warning against the use of whisky in sunstroke, and recommend the triad of glonoin, atropine

and strychnine arsenate. You ask your readers what they would do in such cases.

I should apply cold water to the head and nape of the neck, and give the patient a stiff dose of gin, brandy or whisky, if it were at hand. If a physician in charge of such a case failed to do this, he should be promptly indicted for contributive negligence in not resorting to reasonable measures in an endeavor to save human life. I have had such cases, and have followed the above course, and shall do it again if occasion requires it.

GEO. D. STANTON.

Stonington, Conn.

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[What we said was that in cases of *heat-exhaustion*, with pallor of the skin and signs of shock, whisky might be used with advantage, though much better results are obtainable with the triad of glonoin, atropine and strychnine arsenate; in *sunstroke*, or thermic fever, as it is also called, alcohol is contraindicated. The physician can not differentiate too closely between these two conditions, since they are almost diametrically opposed symptomatically, and require entirely different management.

In *heat-exhaustion*, the surface is cold, the skin moist and clammy, the pulse small, rapid and feeble and respiration shallow; temperature is at first subnormal, but later may be slightly elevated. This is a condition calling for stimulation with strychnine, glonoin, atropine, aromatic spirit of ammonia or alcohol—sometimes heat to the extremities.

In *sunstroke*, on the other hand, the face is flushed, the skin hot and dry, the pulse full and rapid, the respiration rapid and stertorous, the temperature is very high, and there is more or less insensibility, sometimes complete coma, due to the intense cerebral congestion. These are the cases treated with ice to the head and with the water baths and packs. Alcohol and active stimulants should be reserved for the *collapse* stage which sometimes follows. Veratrine for the active stage, supported if necessary with strychnine.

Treat the condition, carefully fitting the remedies, and *don't* merely medicate a named disease. Insolation presents many possibilities for nice discrimination in the use of drugs and other therapeutic measures. Bear in mind that the terms "insolation," "thermic fever," "sunstroke," "heatstroke," "heat-apoplexy," and "siriasis" cover the same or nearly allied conditions. Opposed to these, is "heat-exhaustion," also called "heat-prostration."

We like Dr. Stanton's fighting spirit. We shan't quarrel with him a little bit.—ED.]

TREATMENT OF HEAT-EXHAUSTION

In your last journal you ask your medical confrères to enlighten the "family" on a treatment for sunstroke. I should like to know the derivation of the term "sunstroke," as it has often struck me that it is a misnomer. I believe the term "heat-exhaustion" fits the case better.

As regards treatment: Fresh air is the most important factor, a nice, cool, shady spot, and a reclining position. Don't place the patient upright. Loosen all tight clothing; ice-pack to the base of the skull; a hypodermic injection of strychnine nitrate, 1-40 grain; also 1-100 grain glonoin, or better still, if handy, break a pearl of amyl nitrite, and let him inhale it. After the patient has revived, quiet rest in bed for two days is indicated and avoidance of all alcoholic stimulation. Give light diet, principally liquid.

A. D. HEINEMANN.

Memphis, Tenn.

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[Sunstroke and heat-exhaustion are two entirely separate conditions. While "thermic fever" is perhaps a better word for the former, "sunstroke" or "heatstroke" are not inappropriate. The patient really has a form of "stroke," a sort of "heat apoplexy," since in a typical case he becomes suddenly unconscious. Read the comment to the preceding article.

The treatment outlined by Dr. Heinemann for heat-*exhaustion* is excellent.—ED.]

CHROMIUM SULPHATE IN CHRONIC GONORRHEA

I have had an interesting experience with chromium sulphate during the last

two months, in treating a case of acute gonorrhea.

The patient is a man of about fifty years. He refused absolutely to allow me to do anything for him in the way of injections and was so opinionated about his case that I finally lost patience and decided to find out something for myself in regard to chromium sulphate. I directed him to take eight 4-grain tablets daily. I gave him in addition to this remedy a 1-grain pill of calcium sulphide, every waking hour for three-day periods, alternating with four days without calcium sulphide.

Every five days I cleaned his anatomy with "the clean-out-clean-up" plan. He smoked, ate meat and drank coffee to excess and did about everything forbidden, but he never had one minute of discomfort from chordee and seemingly has had no complications. Now, at the end of forty-five days, the discharge has stopped and he seems well. These are the facts in the case and you can draw your own conclusions.

F. G. De Stone.

San Francisco, Cal.

PSYCHOTHERAPY AND ALKALOIDAL THERAPY

In the past (and perhaps even now), with many, mention of the study of psychotherapy has provoked a smile, not only from the laity, but from prominent teachers, surgeons, medical men, and others. Yet the wisest and the most learned do not smile, but consider the subject of such vast importance that they wonder at the results obtained by its use when combined with the suitable remedies. Psychotherapy will accomplish results that are wonderful, for today there are numerous disorders that will yield to this treatment which will yield to none other. Gladstone, in the latter years of his life, said that it was one of the greatest studies of the age.

So little is, at the present, understood regarding the uses of psychotherapy that no one can claim that he realizes, much less knows, its real value in the treatment of diseases. In order to secure the best results, one must be a true diagnostician and also must know the anatomical relations of the body thoroughly. However, intelligent observation will gradually advance our knowledge, and in this connection I may be permitted to discuss in detail one particular case from my somewhat extensive experiences, especially as this case has been pronounced by some almost a miraculous one. As to the additional employment of drugs, in the shape of the active principles, I may say here that, in my opinion, the two methods of treatment must go hand in hand.

In the fall of 1910 (November 3) a man came to my office asking me whether there was any help for his condition. He told his story in an incoherent, faltering manner, with trembling limbs and broken speech, stating that he had been given up by the doctors as hopeless. He had also been to two sanitariums, where he had been washed, soaked, starved, fed, but all to no purpose; and, as he put it, all had been done that possibly could be done to kill him. He said he could not walk without leaning heavily on a cane, not even across a room, his legs wabbled, and he had no sensation in his feet, nor warmth in them. The hands also were always cold, and the nails blue. He said he had so little control over his limbs that he felt like a jumping-jack.

On examination, I found that his pulse-rate was from 110 to 115 per minute, with small volume. His nervous system was shattered, and he was in an anemic condition, and assimilation was very poor. In fact, he was a wreck in many ways.

The brain was obscured and clouded. For instance, when starting for a trolley-car, he would entirely forget why and where he was going, so that he had to return and begin all over again. Coming out of a place and turning around, he could not, for a short time, remember where he was or what he was there for. His brain was so confused as to render him entirely unfit for business. Time and space in his mind occupied no place. Old events were forgotten, and he could not grasp new ideas. Near objects would seem to him far away, and objects such as buildings seemed about to fall upon him, as he expressed it. All

the time his mind was clouded, so that it was impossible for him to do any work. He had also fixed delusions, believing that he was only a walking corpse, likely to fall at any time, and whatever he did was done only in a mechanical way, even his eating and drinking, which did not nourish him or give him the least benefit.

He was very weak, having already lost about fifty pounds of flesh, and still losing. He could not walk in the dark or close his eyes without swaying to and fro and finally falling. Yet many of his reflexes were normal, though some were exaggerated. He said that he had given up and felt that he could not be cured. However, his family had heard of some of my cases and he came to me as a last resort.

On being asked whether he would be willing that I do all that I might consider necessary (a question I always ask the patient), he replied, "For God's sake, yes. I have no other chance, for this is my last hope." After a thorough examination, I felt solicitous about the action of his heart, and I watched it most carefully subsequently. I began psychologic treatment at once, together with the special active-principle remedies indicated. From the very first treatment he gave up the use of the cane, and never has used it since then.

Aided by a careful diagnosis, each time securing every little new symptom between each psychologic treatment, combined with the proper remedies (which did their expected work by their exact action), improvement began from the start. Repeating this three times per week, improvement continued regularly. Progress was so wonderful and so rapid that it not only astonished myself, but all with whom he came in contact were amazed. As the treatments continued, many new conditions arose from time to time, such as catarrh of the intestines, and it seemed as if the entire intestinal tract discharged its membranes, so much mucus was passed with the feces; and from a weak and irregular heart, skipping, as it did, at the start, a normally functionating heart was the result.

The mind and head symptoms were the last to clear up. He complained of so much fulness in the brain that special psychologic treatment was directed to it. The following week blood flowed from the nose at different times, when treatments were in that direction, evidently showing that the work intended was accomplished.

The man's appetite now returned, so that six meals per day did not satisfy him and the whole physical as well as the nervous structures regained their strength and normal condition. He was so much improved in every way that on January 3, just two months from the beginning of treatments, he had gained in weight twenty-five pounds, and is still gaining; is walking to his place of business, distant about one mile, transacting business well, in fact was so normal in every way that all who came in contact with him were astonished.

The treatments were psychologic, combined with the alkaloidal remedies, which did their work exceedingly well. Many new symptoms developed from time to time, and, as each new one appeared, they were treated psychologically, separately, distinctly, and carefully, following out each symptom anatomically. It was simply astonishing and interesting to note the gain in every way and to observe each time how the entire man, body and soul, seemed to take up the treatments and carry them out—in fact the medicines employed seemed to be possessed of double curative powers.

If the physicians of today would look into psychology a little more and use it honestly where needed, making a true diagnosis and studying the trouble carefully, I feel that excellent results often would be the outcome where now they have to record failures.

Psychological treatments are not easy to give correctly, and time with careful study of each subject is required, but the results are grand; and for one who is in the cause for the love of it and bent upon helping suffering humanity, psychotherapy is an essential factor in treatment. However, one essential thing in psychological treatment is that you must believe in what you are doing, in order to succeed, and must be in earnest, fully and thoroughly, to

help, otherwise you will not secure the best results.

E. L. Finch.

New York City.

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[There are doubtless many cases that will yield as nicely to intelligently applied suggestion as this one, and it will nearly always *help*. After all, isn't the essential part of this treatment the giving of your patient faith in himself and in *you?* Bring a little hope into his life, instill it through and through his consciousness; make him feel it, breathe it, live it, and he can hardly fail to be a more self-reliant and stronger disease-resisting man. But don't stop there! "Suggestion," or psychotherapy, if you prefer that word, never did take the place of the remedy specifically needed. The malarial will continue to take (and require) quinine, the syphilitic, mercury (or *perhaps* salvarsan); the pneumonic, the "trinity" or the defervescent combinations; the child with measles, calcium sulphide, atropine and aconitine. The time has not come, nor will it ever come, when we can abandon the cathartics, the diuretics, the heart toners or the nerve sedatives. But the thoughtful physician will use these material agents more carefully in the days to come, adding instruction in diet, exercise, and *psychotherapy*, not to replace the wondrous gifts of our materia medica, but to supplement them.

Dr. Finch was wise indeed in showing that right drugs with right thoughts may go hand in hand.—Ed.]

HOW THE FAKER WORKS

Being a regular subscriber of your valuable journal, I noticed that you put up a great fight against fakers and quack doctors, and as I have had a chance of seeing something that is worth while mentioning, I may relate it in the shortest possible way, leaving the rest to you for further investigation.

On Division street near Hoyne avenue, this city, there is a tent put up, having signs on it, such as "International Specialist," and others of like purport. Inside there are seats accommodating about 2000 people, besides a stage about 10 by 24 feet. Every night they put up a vaudeville show, thus attracting more people than there are seats—the show lasting from 7 till 11 p. m. Every thirty minutes the big show is on, and that is the big attraction.

A doctor gets on the platform, also taking on the platform with him about thirty people, (men, women and children), and you should hear his lecture. He picks out deaf, blind, crippled, lame, and all kinds of unfortunate victims, and tells the audience that he can "straighten them out," "fix them up," "cure them," if they will use the medicine he has for sale. He has a whole table lined with his bottles.

To one person, who, I know, has been deaf for about twenty years, he said, while rubbing on the oil back of his ear, "He will be able to hear within one minute." He claims that the nerve which produces hearing is dead and he can wake it up with the oil applied behind his ear. This man has consulted some of the best specialists in the city, and no oil back of his ear ever made him hear.

Another case he showed before the audience was that of a little girl about ten years old, walking on crutches. I think it must have been a case of paraplegia. He said that next week at the same hour and day he will have the little girl walk upon the platform and without crutches, and that he will break them before the audience. All this, he said, if the girl will use some of his oil. He said it was a case of rheumatism, claiming that there was no nerve present any more, and that he will fix it up.

He had a dentist on the platform, and had little boys come up. The fellow pulled some of their teeth, merely to add to the fun of the thing, claiming that if you use his oil on your teeth, there will never be any toothache.

I could cover pages writing up all those things that he presented and made the ignorant audience believe. I presume that they believed, because when he stopped lecturing and started sending out his bottles among the audience (he had four or five people running around with them,)

he sold a goodly number at 50 cents per bottle.

Again the show started for half an hour, thus keeping the people from going out of the tent, and again he started lecturing, this time also adding soap, claimed to cure all skin diseases, at "only 25 cents." Everybody bought.

Mr. Editor, if you could take a ride some night and go in there—"it's free"—I am sure you will enjoy the evening, like I did, laughing at the kind of talk he gives the poor, ignorant, innocent people that come there more to listen to the show he has than for anything else. But he "gets them" before they leave. They spend more than if they would go and see a regular show downtown, everybody thinking that the guy is a supreme being—a doctor that does more than any other doctor can do anywhere in the city. That is the impression they get from his talk.

Is it not our duty, as doctors, to go after a faker like that and expose his humbug? Is it not our duty, as regular physicians, to protect lives, as we are supposed to do? Is it not our duty to stamp out such frauds and banish them from the community? Can we not take any vigorous steps against such quacks?

S. Golden.

Chicago, Ill.

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[Doubtless many other readers of Clinical Medicine can tell "how fakers work," Let's have the story of what you have seen and know. We all want to fight the peripatetic quack and itinerant patent-medicine vendor. To do something really effective we must fight "shoulder to shoulder." What will you do to help? For one thing—here is an opportunity to enlighten your neighbors through the medium of your local papers. The editors would print your letters, because those itinerants don't advertise.—Ed.]

PICROTOXIN IN CHOREA

I have read elaborate notes in Clinical Medicine on the treatment of chorea by enormous doses of antipyrin. It may all be very well, but I have no need of such stuff in treating the disease. I have cured in several cases with absolutely nothing except from one to two milligrams of picrotoxin, given hypodermically, daily, nor were they slight attacks either. I pity the choreic child which would have to swallow a few pounds of antipyrin.

Picrotoxin is a peculiar drug, as well as an extremely active one, and it has a number of applications in true therapeutics.

In alcoholism picrotoxin is a fine tonic and nerve steadier.

C. R. Secord.

Chichicastenango, Guatemala, C. A.

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[We are in accord with Dr. Secord in his distaste for antipyrin as a remedy for the treatment of chorea. Picrotoxin is an excellent remedy—not used as frequently as it should be. Who will tell us of their experience with this drug? Arsenic is usually indicated in chorea, our preference being for arsenic bromide, with strychnine arsenate and digitalin where nerve-force and cardiac tone are weak. Who will write us a short, practical, active-principle article on chorea?—Ed.]

"SUCCESSFUL MEDICINE"—A NEW MAGAZINE

With your kind indulgence I want to bring an important message to your readers. I am going to alternate my bimonthly journal *Physiologic Therapeutics* with "another new journal," which will bear the attractive title *Successful Medicine*. I believe that many of your readers will welcome this new journal, as it is to be a journal of *commercial medicine*, devoted solely to that side of practice which directly concerns the dollars and cents, published with the main idea of making its readers better-paid practitioners than mere bricklayers or other skilled laborers, who gain their skill with comparatively little sacrifice and who earn more than the average physician.

The financial side of practice is mighty important. They talk about the "science of medicine" and the "art of medicine," but if I am not badly mistaken, the dollars-and-cents side of medicine has been too

lightly considered. Not, mind you, that the scientific and altruistic side of the doctor's work is deprecated—far from it. The profession of medicine today—as always—is filled with honest scientific workers, and with men ever ready to help "the under dog" when opportunity affords; but think of $700 a year as the income of the average American physician! Remember, too, that medicine unfortunately takes no note of the eight-hour law.

Successful Medicine will deal with the problems of the physician in his office, and especially with those which concern the business of getting results *and the money for it*. It will be published bimonthly, beginning in September. It will be of regular magazine size, with a minimum of 48 pages, and the price will be only twenty-five cents a year! Since this journa will be devoted to such an important phase of medicine, surely every reader of THE AMERICAN JOURNAL OF CLINICAL MEDICINE must be interested. How many will subscribe probably in advance of publication?

Cordially yours,
HENRY D. HARROWER, M. D.
60 W. Randolph St.,
Chicago, Ill.

THE NURSE

Dowered with the wealth of perfect health,
Life's Guardian Angel rare stands, sweet and fair,
Through many hours of weary trials great—
When friends and kin had yielded up
The last strained hope for that beloved one
The Silent Messenger had shadowed o'er
Those many weary days and gloomy nights—
By ling'ring touch of health and look of hope,
And with a grace beyond the reach of pen,
And by a sense of duty richly hers,
And through a dauntless courage, fair to see,
She woos the infant back to consciousness;
Then, like a well-versed mariner at sea,
She rows him to the billowed shores of health.

So now her task is done, the battle won,
And she, with modest grace, now takes her place
Among the Red Cross Soldiers of the World.
—WILLIAM H. SMITH.

Kansas City, Kan.

FOR THE UMBILICAL CORD

An original idea that proved good, and in three hundred and eight cases, to be all one could desire. Cord comes off early, is *odorless*, and there is no irritation, inflammation or trouble of any kind. Try it and pass it on.

Oil of cloves.....drs. 3
Carbolic acid.....gtt. 20
Olive oil, q. s. ad.....ozs. 4
To be used as an umbilicus dressing.

MRS. GEO. B. CAMPBELL.
Bremerton, Wash.

PROTECTIVE MEDICINE

In the leading editorial of your June issue you made a suggestion in the article, "Posthumous Honors," that should attract the attention and consideration of every practitioner of medicine.

Your suggestion that physicians "rearrange matters so that preventive medicine becomes a fact instead of a scholastic dream" sounds the keynote. Now that you have made this valuable suggestion I for one sincerely trust that you will keep at it until some plan of action has been formulated.

To go on with this work, so as to get tangible results, some plan of action must be decided upon. Therefore I suggest that you invite suggestions from physicians all over the country. From these suggestions some business forms can be arranged and submitted in CLINICAL MEDICINE to its readers.

If the plan you have suggested is to be successful there must be some way to approach it in a strictly business manner. The patient wants to know what he is to get; the physician wants to know what he is to give.

A regular contract form should be decided upon and used in every case, just the same as a fire insurance, a life insurance, a health insurance, or any other form of protection policy is generally used. This form of a "health protection policy" gives the physician *something to sell*, and it gives his clientele *something to buy*, thus supplying a *tangible object* necessary to comply with the *"law of exchange."*

The form of policy should be such as to permit the physician to fill in the number of persons, the premium to be paid per month, quarterly, semiannually, or an-

nually. These policies should invariably be *paid in advance.*

A concerted action on the part of a few pioneers in this matter will place the practice of medicine in many districts upon a business basis that will be advantageous the to community as well as physician. By following this plan people can be taught the advantage of "*protecting*" their health. They can be taught that it is better to count on health protection as a legitimate expense of living, rather than an unfortunate expense when affliction visits them.

A campaign of education can be commenced in a community on the plan followed in Philadelphia by Benjamin Franklin, when the formation of independent colonies of America was suggested. In the "Autobiography" of Franklin this plan is explained.

These are just a few suggestions, but they are enough to get a start.

CHARLES V. CROSS.

San Francisco, Cal.

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[What do our readers think of these ideas? Let us discuss them through these pages, endeavoring to elaborate something tangible for the betterment of our profession.—ED.]

CHOLERA AND ITS PREVENTION

Our health authorities are a good deal disturbed over the appearance of cholera in the East. The disease comes to us from Italy, where its presence has been officially denied. There are, at this writing, fifteen cases of the scourge at the Swinburne Island Hospital, in New York harbor, and there have been five deaths, among them one resident American, former day watchman at the Hoffman Island quarantine station. Single isolated cases have been reported at Auburn, New York, and at Brooklyn, but there seems to be no tendency to spread from these points.

The New York health department is watching the situation closely, taking all possible precautions to prevent the fixing of cholera upon our coast, while the Public Health and Marine Hospital Service is setting all its powerful machinery to work for the same end.

Such care is essential, for cholera is a treacherous disease. Dr. Doty, New York's Health Commissioner, believes that it may be transmitted by "carriers," individuals who have no symptoms of the disease but whose intestinal canals nevertheless are well supplied with the germs. With a pure water supply, well-cooked food, and hygienic and cleanly methods of living, there is not much danger of wide dissemination of cholera.

It is wise to bear in mind that the cholera vibrio does not thrive in an acid medium, but best in the alkaline bowel. In treatment, rectal injections of tannic acid and the internal use of lactic acid have been advised. As a prophylactic expedient, how much simpler to provide each individual in threatened territory with an ample supply of tablets containing the Bulgarian lactic-acid bacillus, the most rapid producer of lactic acid known. Something about treatment next month.

TO THE PROFESSION

Any physician receiving circulars advertising a book published by one W. J. Jackman and purporting to contain an introductory chapter by me, will confer a favor by sending such circulars with the envelope in which they were received to me.

G. FRANK LYDSTON.

Chicago, Ill.

NEWS NOTES

The Medical Department of the University of Colorado is to be removed from Boulder to Denver.

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Atlanta is to have another medical college, to be known as The Southern College of Medicine and Surgery.

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Arrangements are under way to establish in Tulane Medical College, New Orleans, a chair of tropical medicine. There is no better place for it in the United States.

The University of Michigan announces a new medical course; one which will give the graduate the degree of P. H. D., i. e., Doctor of Public Health.

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Dr. William Osler, known to every physician in America, who surrendered his professorship at Johns Hopkins University for honors at Oxford, was made a baronet during the coronation festivities of George V. It is "Sir William" now.

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A bill has been passed by the New York Legislature prohibiting the sale of hypodermic syringes and needles at retail except on the order of a physician or veterinarian. This sensible measure will do much to curtail the use of habit-forming drugs, as well as to prevent the fraudulent use of tuberculin by stockmen.

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The grimy roller towel of Louisiana has gone to keep company with the public drinking cup of Illinois, Massachusetts and Wisconsin. "The use of the common towel" is now forbidden in railroad stations, hotels, factories and other public places. Good riddance! Why not the really sanitary individual paper towel?

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North Carolina is carrying out a campaign against the hookworm. Dr. John E. Ferrell reports that during twelve months the number of patients treated in that state for this disease has increased from 3250 to 21,000. Dr. Dinsmore, secretary of the Alabama State Board of Health, says that 9,775 cases of hookworm disease were treated in that state in 107 days.

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The Medical Department of the University of Tennessee has been moved from Nashville to Knoxville, while the Medical Department of the University at Nashville is to be abandoned, together with the other departments of that institution. This leaves the Medical Department of Vanderbilt University with a clear field in Nashville, it being the only medical school in that city, which formerly housed four institutions of this kind.

At the eighth annual encampment of The United Spanish War Veterans, Department of Illinois, recently held in Rockford, Dr. Wm. F. Schaare was elected Surgeon General of the department. During the Spanish-American War Dr. Schaare served as hospital-corps man in the first and second division hospitals of the U. S. Army corps. He had charge of the pest-

Dr. Wm. F. Schaare

house in Jacksonville, Fla., and, when in Cuba, he and Dr. Jas. W. Jobling of Tennessee were detailed to take charge of the laboratory division of the first-division hospital corps, with headquarters at Camp Cuba Libre. Dr. Schaare was born in Chicago, in 1875; was educated in the public schools, in the West Division High School and Manual Training School of this city, also the Chicago Athenæum. He is a graduate of The Chicago College of Medicine and Surgery, class of 1902, and is now professor of medical surgery in the same institution, being also instructor in surgery in the Post-Graduate Hospital. Both he and Dr. Emil Lofgren, formerly

Health Commissioner of the city of Rockford, and past surgeon of the Spanish veterans of this city, are members of THE CLINIC "family." We join all our readers in congratulating Dr. Schaare upon the honor which has been given.

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Dr. H. W. Wiley is urging upon Congress the wisdom of prohibiting the promiscuous distribution of drugs on doorsteps, in mailboxes and other places where they become accessible to children. He believes that the manufacturer should be held responsible for this form of advertising. Dr. Wiley is absolutely right. The indiscriminate handing out of purgative pills and headache cures in this way is fraught with danger, especially to children. When the people are sick, they should be taught to go to the doctor for advice and to the druggist for their supplies.

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Dr. W. O. Nance of Chicago, who was elected a member of the city council this spring, has introduced an ordinance prohibiting the use of roller towels in public places. This is a good idea, and we hope that Dr. Nance's ordinance may become a municipal law. There is far more danger in the roller towel than there is in the public drinking cup. Wherever the public towel is a necessity, individual towels can be provided at small additional expense, or the convenient and sanitary paper towel, which has recently been introduced, may well be used in its place. We shall be glad to see Dr. Nance's city ordinance become a state law.

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While the fear of tetanus infection is very natural in St. Louis after the experience of some years ago, the present scare appears hardly justified. According to *The Post-Dispatch*, Dr. Smith vaccinated a little boy four years old, who died from tetanus a month after he had been vaccinated. The period of one month after vaccination shows that the tetanus could not have been due to this prophylactic measure, because tetanus occurs much more rapidly, the period of incubation being only very short. Besides, the virus for vaccination which is in use now is very carefully tested, since the unfortunate experience in St. Louis above referred to, when the virus prepared by the city had been found badly contaminated.

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Dr. Oscar Dowling, who is at the head of Louisiana State Health Department, has fitted up a "demonstration train" of three cars, which is sent by the State from station to station to preach the gospel of health and long life. These cars are fitted up with a model sickroom, showing modern methods of ventilation and ideal sanitary conditions. There are also demonstrated, in these cars, modern ways of preventing and curing such diseases as are common among the people of the different sections, and instruction is given concerning sickroom foods and how to prepare them. Health lectures are given at the places where the cars stop, the purpose being to present the facts to the people in such a plain, yet comprehensive, way that the dullest may understand.

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The latest plan of publicity in fighting disease is the "motion-picture show." How popular instruction can be given, in this manner, concerning the spread of tuberculosis was shown by Dr. Harvey D. Brown at the last meeting of The Wisconsin State Medical Society. Similar pictures are being exhibited in nickel shows all over the country. By giving health instruction, these much-criticised amusement halls may become a means of doing great good. Why should not physicians everywhere persuade the local managers to do work of this kind? The film-makers now provide pictures which illustrate the dangers of infected milk, how disease is conveyed by flies, and other important influences at work in the production of disease. Some of these films have been made in cooperation with The National Red Cross Association, and have its endorsement. Any manager can procure these if he wiill.

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An important law, which went into effect on July 1, in Iowa, was one providing that inmates of state penal and insane institutions shall undergo the operation

known as vasectomy upon the recommendation of the surgeon and physician of any of these institutions, if such an operation is deemed necessary to prevent the procreation of persons likely to inherit insanity or criminal instincts, or if it will, in the judgment of those physicians, tend to restore the health of the patient. A penalty of $1000 is prescribed for the performance of the operation without the consent of the chief surgeon of the institution where the patient is confined.

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According to Dr. Wm. H. Welch, of Johns Hopkins University, practically all children of the lower classes of society are affected with tuberculosis in a latent form by the time they reach the age of fifteen or sixteen, but this latent affection is distinctly preventive, and gives, in most cases, an immunity against the disease in later years. This statement was made by Prof. Welch at the annual meeting of The National Association for the Study and Prevention of Tuberculosis, in Denver.

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The physician who desires to keep up to the times should be able to read the contributions of the great German and French scientists in the original. His ability to do this will give him a wonderful stimulus, and add decidedly to his professional standing. The writer studied German when he was a young man in college, but having become rusty, he is now brushing up at the Berlitz School of Languages, where a working knowledge of any of the modern languages can be obtained in an astonishingly short time. If you cannot go to the school itself (there are branches in every large city in the United States) the next best thing is to obtain the books and study at home—but you ought to take the course in person if you can. The book, "German With or Without a Master", is sold for $1.25. The corresponding French and Spanish books, $1.00. If you are interested, address the Berlitz School of Languages, Auditorium Building, Chicago.

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The following nice little comment upon certain articles in the March number of The American Journal of Clinical Medicine appeared in a recent issue of *The Monthly Bulletin of the Pan American Union*, of which the Hon. John Barrett, of The International Union of American Republics, is the editor: "'What One Practician Has Accomplished in Mexico,' by Robert Gray, M. D., Pichucalco, Chiapas, Mexico, appearing in *The American Journal of Clinical Medicine* for March, tells of some of the difficulties physicians find in establishing themselves in Mexico. 'Alkaloidal Practice in Guatemala,' by Carlos F. Secord, M. D., 'A Doctor's Life in Spanish Honduras,' by John Abbott, M. D., and 'Conditions and Medical Practice in Bolivia,' all deal with the life of the medical profession in these different countries, as the titles indicate. We can recommend them for the perusal of the ambitious medical student who is turning his eyes to the horizon of Latin America."

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By a recent decision in the U. S. Circuit Court, H. K. Mulford Company were enjoined from marketing adrin, their brand of epinephrine, the active principle of the adrenal gland—the patent claims of Dr. Takamine having been upheld. The firm of H. K. Mulford Company will appeal this case to the higher court, but meanwhile will discontinue the manufacture and sale of adrin and products containing it. In a recent statement, this firm expressed the opinion—and this will be concurred in by thousands of progressive physicians—that the granting of product patents on medicinal substances is a hindrance to rather than a means of promoting progress in the practice of medicine. They believe that these patents are not only contrary to the object and spirit of the patent law but also contrary to the best interests of pharmacologic practice in the United States. With this view we are inclined to concur. The enormous profits made in this country by German manufacturers under the protection of these patents—patents, by the way, which are not permitted in Germany itself—amount to nothing less than "graft," by means of which millions and millions of dollars are abstracted from the American purse to go into the coffers of the great German dye-houses.

State-Board Examination Department

Edited by R. G. SCHROTH, M. D., 546 Garfield Ave., Chicago, Ill.

Owing to some delay in preparing the questions for the June article, it was impossible to get the matter to the editor in time to have it inserted under the article headed "The Purpose of This Department," and the remainder of the State-Board Questions and Answers which were left over from the May issue were inserted, instead. The article above mentioned was intended to head the list of questions given below.

Below will be found a representative list of questions, which are supposed to represent as nearly as possible the average state-board examination, as the questions were selected from a large list of examination questions asked by a number of state medical examining boards from all over the United States.

In some of the states, you will find the questions given by the Board of Examiners easier, and in others, harder, perhaps; but I believe this will prove to be a fair average, and if any of the readers of this journal desire to test their powers and ability in writing answers and test their powers in a real examination, write the answers to these questions, using only one side of the paper, and send to my office, accompanied by $1.00 in money-order or currency, for postage, mailing, and time required to grade papers, and they will be looked over carefully and mistakes will be pointed out to you, and your attention called both to good and bad points.

This small amount is required, owing to the work required to grade, the additional clerical help required, and the time consumed in doing this work, and the test and experience thus obtained should be of much benefit to any one in future examinations.

The answers to these questions will be given in the next issue of CLINICAL MEDICINE.

ANATOMY

1. Give the general classification of bones.
2. Name the openings of the heart.
3. Give the branches of the internal carotid artery and their distribution.
4. Describe the appendix vermiformis. Locate McBurney's point for performing appendectomy.
5. What is the origin, action, and nerve supply of the rectus femoris muscle?
6. Give the boundaries of the thorax.
7. Describe the intestinal tract and name its divisions.
8. Describe the sympathetic nerve.
9. Give a general description of the spinal cord.
10. What are the cranial nerves? What do they supply? Name function of each.

CHEMISTRY, ETIOLOGY AND HYGIENE

1. Define valence, acid, base. What is the valence of Ca, Na, K, As, Ba?
2. Give a test for iodine. For arsenic.
3. Give a test for hydrocyanic acid.
4. State the occurrence and properties of oxygen, hydrogen nitrogen.
5. What is the formula for carbolic acid? How obtained? Antidote?

ETIOLOGY AND HYGIENE

1. Give the etiology of pelvic peritonitis.
2. Give the etiology of apoplexy.
3. Give the etiology and means of prevention of typhoid fever.
4. What is the difference between a contagious and infectious disease?
5. What is the distinction between sewer-gas and sewer-air? What gives sewer-gas its peculiar odor?

SURGERY

1. What are the indications for amputation in gangrene of an extremity?
2. What are the signals of danger in general anesthesia?
3. Give the treatment of painful cicatrix, adherent cicatrix, contracted cicatrix, exuberant cicatrix.
4. Mention the most common sites of epitheliomata.
5. Give classification of asphyxia, and definition of each form.
6. Classify aneurisms. What are their predisposing and exciting causes and the usual locations?
7. Give the principal methods of abdominal drainage with which you are familiar. What method do you consider best?
8. What important tissues may be wounded accidentally during an operation for femoral hernia?
9. Name and describe four forms of talipes.
10. Give briefly Cohnheim's theory as to origin of tumors. What conditions justify amputation of a limb?

PHYSIOLOGY

1. What is the function of the sudoriparous glands? Where is the dominating sweat-center located, and how is this excited to action?
2. Describe the normal pulse. State the factors active in its maintenance, and give the rate during infancy, youth, adult life, and old age.
3. Describe the patellar reflex and state upon what its integrity depends.

4. Describe minutely the formation, elimination, and passage of urine.

5. What ferments are secreted during the process of digestion. Give their reaction, action, and function.

6. Give the physiological composition of the blood, with the function of each part.

7. Trace the different steps in the digestion of a bolus of food consisting of proteids, fats, starches, and sugars.

8. Describe the normal sounds of the heart, and state how they are produced and where they may be distinctly heard.

9. What is the result of a lesion of the spinal cord in the cervical region? Lumbar? Sacral?

10. Locate and give function of the ductless glands.

NEUROLOGY

1. Give the cause, symptoms, and diagnosis of epilepsy.

2. What is dementia? Paranoia? Idiocy?

3. Give diagnosis and treatment of tic douloureux. Of sciatica.

PATHOLOGY AND BACTERIOLOGY

1. Give morbid anatomy of cerebral hemorrhage, and name the common cause when it appears in early life.

2. What is the pathologic anatomy of pyelitis?

3. Name the morbid anatomy of Hodgkin's disease.

4. Describe the lesions in typhoid fever.

5. Hyaline degeneration. Give its etiology and seats.

BACTERIOLOGY

1. Micrococcus lanceolatus: Describe process of staining. What is its significance, and in what inflammatory conditions is it often observed?

2. What bacteria are associated with inflammation and suppuration?

3. What is essential to the life of bacteria?

4. Describe the method for determining the bacillus of tetanus, and state origin, form, properties, and growth.

5. What are the five nutrient media generally employed in the culture of pathogenic bacteria?

GYNECOLOGY

1. Name three varieties of colpitis, with causes and symptoms of each.

2. Differentiate between a partial inversion of the uterus and a polypus of the uterus.

3. Describe pruritus vulvæ, giving causes and treatment.

4. Define metrorrhagia. Name two of the most common causes prior to the menopause. What would you suspect, should it occur subsequent to the same? How would you verify your suspicion?

5. Give two indications for hysterectomy. Which do you prefer, vaginal or abdominal? State upon what ground you base your preference.

6. Describe the pathologic effects caused by laceration of the cervix, and all reflex disturbances therefrom.

MATERIA MEDICA AND THERAPEUTICS

1. Give the preparations and classifications of phenacetin, somnal, and hydrogen dioxide.

2. Name ten official alkaloids.

3. What is meant by hemostatics? Describe their mode of action, and name several of them.

4. Give the action of absorbable metal upon the circulation. Name one, and explain its therapeutical uses.

5. Give derivation of ichthyol, and its therapeutic application.

6. What are the effects, uses, and doses of calcium chloride?

7. Describe hypnotics and the two classes into which they may be divided. Give examples.

8. Name the official soluble salts of iron.

9. From what are the following alkaloids obtained: Quinine, strychnine, hydrastine, atropine, physostigmine?

10. What are the uses of the bromides?

OBSTETRICS

1. Define: Dystocia, hydrocephalus, funis, phlebitis, caput succedaneum, ectopic gestation, hyperemesis, polyhydramnios, sapremia, gastrohysterectomy.

2. Name at least three diseases in the fetus causing increase in size which may delay or interfere with labor.

3. What is ischispagus parasiticus?

4. How would you treat a case of hourglass contraction?

5. Mention regulations for diet during normal pregnancy.

6. Bound the true pelvis. Define brim. False pelvis. Name the bones which form the obstetrical pelvis.

7. Enumerate the symptoms which indicate the death of the child in the womb, and state what course should be pursued in such a condition.

8. What are two most reliable diagnostic indications of abortion? How would you treat a case of threatened abortion?

9. Describe the liquor amnii, and state its functions.

10. Give the pelvic measurements.

PHYSICAL DIAGNOSIS

1. What is meant by the term pathognomonic? Give four examples.

2. What would be the findings in an examination of the blood in pernicious anemia?

3. In what diseases are the following conditions found: (a) clubbing of fingers; (b) loss of patellar reflex; (c) Cheyne-Stokes respiration; (d) wrist drop; (e) pain in the knee, (f) barrel-shaped chest; (g) Koplik's spots; (h) pain in the testicle and glans penis; (i) Argyll-Robertson pupil; (j) strawberry tongue?

4. Give the differential diagnosis between mastoiditis and otitis media.

5. Give diagnostic symptoms of hydrothorax and pyothorax, and differentiate the two conditions.

6. How discriminate organic from functional murmurs of the heart?

7. State the pathologic significance of rigid recti muscles of the abdomen.

8. Differentiate between chronic parenchymatous nephritis and chronic interstitial nephritis.

9. Give the practical method of differentiating gastroptosis and gastrectasis.

10. Differentiate acute synovitis and acute articular rheumatism.

OPHTHALMOLOGY

1. Describe in detail how you would proceed to remove a small foreign body imbedded in the cornea.

2. Define mydriasis; myosis. Name some drugs which produce each condition. What is the Argyll-Robertson pupil?

OTOLOGY

How do you distinguish whether deafness is due to nerve lesions or aural lesions?

PRACTICE OF MEDICINE

1. What are the remote effects of syphilis on the nervous system?

2. What are the symptoms of gastric ulcer?

3. Give the symptoms of typhoid fever in first, second, third, fourth weeks, and treatment of the same.

4. What are the symptoms of exophthalmic goiter, and what are some of the measures employed in its treatment.

5. Describe the symptoms of a case of chronic lead poisoning, and outline a method of treatment of the same.

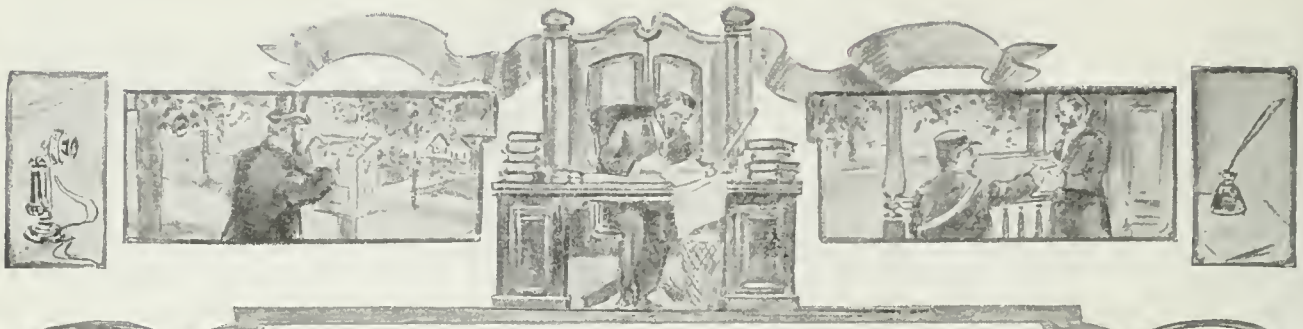
6. What are the early manifestations of pulmonary tuberculosis, and give your method of management in a case.

7. What are biliary calculi? Their cause and treatment?

8. Describe the diagnostic significance of hematuria. Give etiologic factors. How would you differentiate whether kidneys or bladder was affected.

9. Explain the diagnostic significance of the knee-jerk.

10. Define leukemia; Addison's disease; myxedema; brachycardia; uremia.



CLINICAL · MEDICINE
POST-GRADUATE SCHOOL of THERAPEUTICS

George F. Butler, A. M., M. D., Director
Thomas J. Mays, M. D.
C. S. Neiswanger, M. D.
C. E. de M. Sajous, M. D.
Alfred S. Burdick, A. B., M. D.
William F. Waugh, A. M., M. D.

PART III—LESSON TWENTY-THREE

ACUTE ANTERIOR POLIOMYELITIS

TREATMENT OF INFANTILE PARALYSIS

Thus far, the management of infantile paralysis has not been satisfactory. In the acute stage, the victim, as a rule, has been kept in bed for a variable period, that is, until all febrile and constitutional symptoms have subsided. Then, after a longer or shorter period (more often the former) if it survives, the child finds its way into the hands of the orthopedic surgeon—who is now its only hope—with the prospect of finding itself more or less hopelessly crippled. However, thanks to the discovery of the etiology of this disease, more favorable results are promised.

The Acute Stage.—At the onset of the disease, the treatment is practically that of an acute febrile attack. Little or nothing can be done to cut short or to modify the actual progress of the anatomic lesion.

The child must be kept rigidly in bed and as quiet as possible. A milk diet must be adhered to, the bowels kept open by means of saline laxatives, and measures taken to insure for the child an abundance of restful sleep. A cradle should be used to keep the bed-clothes off the lower limbs, for, if the nuclei of the extensor nerves are chiefly affected, their weight acting upon the toes will accentuate and increase the effects of any extensor paralysis present.

During this stage, leather or poroplastic splints, rectangular in shape, may with advantage be used in cases in which the lower limbs are affected, in order to keep the foot at right angles to the leg. If pain is a prominent symptom in this stage, it may be treated by the application of hot fomentations or by counterirritation. A mild form of counterirritation along the spine is of great benefit. This is best done by a paste consisting of mustard (1 part) and flour (3 parts), applied as a poultice along the back, but removed as soon as the skin is reddened, and reapplied after a while. For several days—a week perhaps—this continuous counterirritation without the discomfort of a blister should be kept up; or else dry-cupping along the spine may be resorted to at frequent intervals. Many times sponging with a mixture of alcohol and water is indicated in the cases in which the temperature runs above 101° F.

During this febrile stage, it is of the first importance that the limb be kept thoroughly warm. This can best be effected by bandaging it lightly over with cotton wool, or, if necessary, hot-water-bottles may be used; in the latter case, however, care must be taken, since, owing to the existing vasomotor disturbance, any resulting burns will be slow in healing.

The Second Stage.—As soon as the acute stage has passed off and the pain and constitutional symptoms have subsided, four chief aims are to be kept in view with regard to treatment, namely: First, to ascertain as far as possible the exact extent of the damage done. Second, to anticipate and prevent to the greatest possible degree the advent of any definite deformity. Third, to maintain the nutrition and tone of the muscles of the limb and especially the unaffected one. Fourth, to train or, it may be, to reeducate the child in the use of the injured limb under its new condition in such a way as to obtain the maximum benefit from the action of unaffected or only partly paralyzed muscles and also to train them, within physiologic possibilities, to take the place of those muscles that have become functionless.

Of the four aims enumerated, the last one must be considered the most important, not only intrinsically, but also because of the fact that in its accomplishment the third purpose will be most effectively secured; and this is because we have no external stimulant that can be applied to a muscle for the purpose of maintaining its tone and nutrition at all comparable with a stimulant which reaches it from the central nervous system by means of its own nerves.

The satisfactory determination of the exact degree of permanent damage which will result from a given attack of anterior poliomyelitis is by no means always an easy matter. The period of acute febrile disturbance is followed by an interval to which succeeds a period of gradual improvement, which lasts for a variable length of time, and it may sometimes be six months before the exact extent of final paralysis can be fully and precisely ascertained; still, in the majority of cases, a very fair estimate may be obtained within a very much shorter period by a careful investigation of the electrical reactions of the muscles of the affected limb.

Early Precautions Against Permanent Injury.—Should an early commencing deformity be detected, a suitable light leather or poroplastic splint should be worn at night, in order to correct it as far as possible, while during the day, as soon as a child attempts or is trained to use the affected limb, careful watch must be kept to prevent it from using it in such a way as to increase the tendency to any particular deformity in course of development.

The Chronic Stage.—As soon as the acute symptoms have subsided and all pain has disappeared, massage and passive movements should be instituted, and of the two the latter is the more important, resistant movement being especially valuable. Massage once a day and passive movement at least three times a day should be carried out with the utmost regularity. Massage should be given once or twice a day and combined with such attempts at active movements as the child is able to make. Among the poorer classes, it is well to instruct the mother how to do this so that it may be given with persistence. The massage should not be of the severest kind, but yet should be sufficient to stimulate the circulation in the limbs and to promote the lymphatic and venous flow.

Next to massage, mechanical devices calculated to induce the child to make use of the weakened limb are to be employed. A household gymnasium adapted to the individual case can easily be devised by the physician, and if such exercises are made to appear as play, much good will be derived from the child's own efforts.

The Use of Electricity.—As to the use of electricity in these cases, that agency sometimes proves of great value, but the benefits which are said to result from its use possibly are somewhat overestimated, and there is even a risk of overstimulation of the unaffected muscles, and this, naturally, may tend to increase any deformity in process of development. In cases in which the muscles react to the faradic current, benefit often results from its use, and if overstimulation of the muscle is avoided no harm is likely to result. However, in those cases in which the muscles react only to the constant current, difficulty often arises.

The majority of children strongly object to the use of electricity, and while they often will bear a faradic current strong enough to send the observer's muscles

into spasms, they will not often tolerate a galvanic current sufficiently strong to produce muscular contraction. In this case no object is gained by its application. In short, each case must be judged on its merits.

I wish to say here, however, that electricity seems to have no influence whatever upon the course of the disease. It does not affect the lesion in the spinal cord either in decreasing the hyperemia or increasing the nutrition of the nerve-centers. For this reason, applications of galvanism to the spine are absolutely useless. On the other hand, applications to the muscles direct may be of distinct service, and in two different ways, namely: first, by causing them to contract and thus exercising them when voluntary exercise is impossible; secondly, by promoting those chemical changes in the muscle which are essential to growth and nutrition

Examination of any case will reveal a certain number of muscles in the paralyzed limb which respond to faradism. These muscles will eventually recover entirely, yet their tone and strength should be kept up, during the period of improvement, by means of exercise with either the faradic or the galvanic current. It is well proven that, as exercise of a healthy arm will markedly increase the size of the biceps muscle, so the application of faradism regularly to a susceptible muscle will increase the size of this muscle. Hence, to the weakened muscles which still respond to faradism, an application of the faradic current for ten minutes once or twice a day will be of distinct service.

The majority of the paralyzed muscles do not, however, respond to faradism and it is time wasted to apply this current to those muscles; but they do respond, as a rule, to the interrupted current, the positive pole being placed over the muscle and the negative on the limb, a short distance above. The interruption should be made by an electrode held in the hand and provided with a finger-key, and each muscle should be thus treated each day for about three minutes, fifty to sixty interruptions a minute being made by the finger. The strength of current should be the least that will secure contraction in the muscle. When interruptions of the current produce a prompt response, alternation of the current should be employed, by reversing the current rapidly by pole changes on the battery.

How to Give Treatments.—It is to be remembered that in this disease the application of electricity is more painful than in health, as I have already stated. It is also to be remembered, in applying electricity to children, that their confidence must be gained. If they are frightened at the first application, subsequent treatment will be a continuous struggle. It is better, therefore, to begin a course of electrical treatments by several applications of the sponges and electrodes while no current is passing, thus accustoming the child to the apparatus and gaining its confidence. After two or three such applications, a weak current may be used and then day by day its strength may be increased, until by the end of ten days the necessary strength is reached. In this way, a daily struggle with unsatisfactory and probably useless applications can be avoided and the parents' consent obtained to a course of treatment to which they would object if every application meant a struggle.

Any intelligent mother or nurse can be taught to give, in this manner, the galvanism or faradism to a child, and it is best to interest the attendant in the treatment from the beginning and to instruct her carefully, so that at the end of a week the treatment can be left entirely in her hands. Such an application of electricity is to be made daily or twice a day for fully two or three years.

Spontaneous Recovery will have reached its best at the end of the first year, but even after this time, the muscles may be developed somewhat by means of continued exercise.

When, however, a child is quite able to move voluntarily, with some force, any paralyzed muscle, it is far better to rely upon voluntary exercises than upon electric applications. If at the end of a year no effect upon the muscle is obtained from massage, bathing and electricity,

then there is no use in continuing the treatment of that muscle, as it will never recover, for its nerve-cells are entirely destroyed.

Mechanical Aids.—The use of mechanical apparatus plays a great part in the treatment of infantile paralysis in its chronic stage. It is to be remembered that many weak muscles do their work only when a limb is braced in an advantageous position or when they are assisted in their action. Many of the muscles have, as a part of their function, to keep the joints in place, and this part can be supplied by properly adjusted braces, hence an apparatus may enable a child to use a muscle or move a joint which it could not do were the joint unsupported. Further, the result of paralysis of one group of muscles is to allow the joint to be bent by its opponent or to yield to the influence of gravitation, hence, if a brace be not applied to correct this tendency, the paralysis often is followed by deformity.

There is no disease in which orthopedic apparatuses are of more service than in infantile paralysis, and it can not be applied any too early after the acute stage, as it may possibly prevent the development of contractions and deformities.

No stage is too late in which to fix a brace, for even when these deformities have occurred, tenotomy may be employed to straighten and adjust the joint, and then the limb can be fixed by the brace in the proper position; but every case has to be treated skilfully, in accordance with its own peculiarities, and the ready-made braces of the shops are often worse than none at all. A special apparatus for each individual case must be fitted under the direction of an orthopedic surgeon. Furthermore, it must be remembered that in a growing child such apparatus must be constantly readjusted, its length and size being changed from month to month, in accordance with the development of the limbs.

Tenotomy.—In many cases of deformity where there is a strong contracture of a fairly healthy muscle overcoming the weak paralyzed muscle, the question of tenotomy will arise. This operation will, of course, result temporarily in the replacement of the deformed limb to its natural position, still, unless the joint can afterward be held by a brace in a proper position, by itself it will be of no permanent value. Hence, in some cases tenotomy is to be regarded only as a preliminary to the proper application of apparatus.

Other Devices.—Apparatus have also been devised, especially in the treatment of infantile paralysis in the hand, by means of which weakened muscles may be reinforced by elastic bands, so applied as to take the place of the paralyzed muscles. Thus a dropped wrist or a paralysis of the extensors of one side of the wrist can be somewhat relieved by means of elastic bands attached to the finger-tips or to rings and to the elbow, and running through a brace at the wrist. Such devices, however, are usually discarded after a time, as they are more cumbersome than useful. Apparatus are available which are especially applicable to spinal curvature of the paralytic kind; and in any case in which the body or back muscles are involved, at the onset it is well for a child to wear a brace in order to prevent the establishment of some form of curvature. It has been proposed to attach a portion of the tendons of certain healthy muscles to the tendons of paralyzed muscles about the ankles, knees, wrist, and elbow, in order that the healthy muscles may be made to do the work of the muscle which is paralyzed, and a few successful attempts in this direction have been reported.

Training the Paralyzed Muscles.—As soon as possible, the training of the child in the use of the affected limb should be commenced, in the same way as after the surgical treatment of deformities which may result later, the patient has to be taught the proper use of his restored foot. It is in this latter procedure that the greatest hope probably lies in preventing or neutralizing the complicated deformities so often seen as a result of infantile paralysis. That such a process requires time and unremitting patience cannot be denied, and it must be admitted that in some cases it may be impracticable. Nevertheless, if efficiently carried out, such training will often meet with such success, and even

if the results are disappointing and the case ultimately necessitates surgical measures, the surgeon will find a fairly satisfactory limb upon which to work and moderately healthy muscles into which to transplant his tendons, instead of, as is so often the case, a more or less hopelessly withered limb, due in part to the initial poliomyelitic invasion, but also being in part a disuse atrophy.

Hydrotherapy also plays an important part in the treatment of this disease. The general circulation and the restoration of the cold and flabby limb are aided by warm baths, and it is the habit of many physicians to order these children to play, for half an hour twice daily, in water kept at a temperature of 98° F. These baths may be followed by a cooler sponging and brisk rubbing.

Proper protection of palsied limbs, by extra flannel clothing, is always advisable.

Medicinal Treatment.—Some advantage is to be gained from the internal use or ergot or of potassium iodide, employed in the early stage, while moderate doses of sodium salicylate or of quinine may also be tried. If the child is in much pain or has convulsions, moderate doses of potassium bromide or of Waugh's anodyne, with or without codeine, may be employed as a symptomatic remedy. The general treatment of febrile conditions, a light diet, and laxatives, as stated in the beginning, are not to be neglected. Rest in a prone position in bed is better than constant lying upon the back.

After the acute stage has passed, nourish the child well and keep the paralyzed limb warm. Potassium iodide, may do good.

When the paralysis begins to subside spontaneously, it is well to administer strychnine arsenate or the sulphate in a full dosage three times a day, say, 1-67 to 1-50 of a grain for a child three years of age. This remedy is best given at intervals, rather than continuously. It is my rule to use it for a week and then intermit it for three days. The condition of mechanical irritability in unparalyzed muscles, as determined by percussion with a hammer, is a good indication of the degree of the effect produced by the strychnine, and this agent may be increased up to a definite point of augmentation of this irritation. It is to be remembered, however, that the twitching of the limbs and stiffness of the back usually indicative of strychnine effects are not to be expected in infantile paralysis where the muscles are paralyzed.

Whether general tonics, such as codliver oil, hypophosphites or arsenic, have any effect of a favorable nature, must be left to the judgment of the physician in each individual case. The most important indication during the stage of regression is to preserve the nutrition and function of the paralyzed muscles.

George F. Butler.

Chicago, Ill.

MEDICINAL TREATMENT OF POLIOMYELITIS*

In 1883 Landouzy suggested that zoster should be ranked with the eruptive fevers and made of it a specific and infectious malady denominated zoster fever. At certain periods many cases of zoster appear as if epidemic, and some cases do seem possibly, transmitted by contagion. Trousseau, Kalmann, and Besnier reported cases, and more recently Thibierge, Sicard, Widal, and Jean Minet have added to their number. These have tended to establish relations of undeniable contagion between zoster with eruption and the malady without eruption. In a recent number of the *Paris Médical* Cruchet develops this further. Within a month his clinic at the Bordeaux Hôpital des Enfants saw five cases of zoster in patients whose ages varied between 18 months and 12 years. The quick succession of these cases of a malady that is rare in childhood favored the idea of its epidemic character. In the case of the baby a real contagion seemed to have been established. This child was brought to the hospital for an attack of slight bronchitis and occupied the bed next to a girl of four years who had intercostal zoster. Three days later the disease appeared in the younger child. The only treatment mentioned by Cruchet was the application of a powder of talc and bismuth.

*Reprinted from *The Medical Record.*

Osler described zoster as an acute specific disease of the nervous system with a localization in the ganglia of the posterior roots. Strümpell says: "It is not impossible that many of the apparently 'idiopathic' neuralgias are to be referred to infectious causes, for instance, in intercostal neuralgias associated with an eruption of zoster." Again: "The attacks of zoster often exhibit a certain epidemic and sometimes even an endemic disturbance, so as to suggest an infectious agency. The almost constant swelling of the neighboring lymph-glands also favors the theory of the existence of a true inflammatory neuritis."

The text-books are not remarkable for the extent or clarity of the data they afford on the treatment of this painful malady; yet it is one for which we possess a remedy whose efficacy is so certain and uniform that we may make it the starting point for further reasoning. I refer to the phosphide of zinc. In 1890 I had a typical case of zoster in the person of a Jewish youth at Bedford Springs. The family were quartered in an old building whose walls constantly dripped water even in the warmest weather. The hotel lay in a valley too much shaded and with too little circulation of air for health. Any infectious germ once present had abundant opportunity to develop and multiply there. The treatment was ineffective until he was given zinc phosphide, in doses of a centigram an hour before each meal. Within two days the attack was under control and recovery was speedy and uninterrupted.

At that time we looked on zoster as the peripheral manifestation of disease affecting the corresponding spinal roots, without a thought of its possible infectious nature. Acting on that theory I sought to extend the use of zinc phosphide to other cutaneous expressions of central nervous disease-processes, and with considerable success.

Some curious instances of the applicability of this therapeutic doctrine occurred. I looked on the remedy as a possible inciter of nerve activity by the use of which the reparative processes were set in active operation and perhaps a requisite food element supplied. But if zoster is an infection the applications of zinc phosphide must be explained otherwise, and the field of its possible utilization is immensely widened.

We begin to call to mind that phosphorus has been lauded as a remedy in certain phases of pneumonia, and possibly there is something worth developing in its therapeutics. For instance, zoster is a malady affecting the posterior spinal roots. Is it possible that any remedy can be so narrowly differentiated that it cures an infectious malady affecting especially the posterior spinal roots, and does not similarly act upon another infectious malady mainly affecting the anterior spinal roots?

It seems legitimate to give zinc phosphide a trial in acute anterior poliomyelitis.

It is my firm belief that many infections occur through the alimentary canal, more than have been as yet suspected. Apart from this, fecal toxemia contributes one element to every febrile malady, which is deleterious to the patient and renders his suffering greater, besides lessening his chances of recovery. For in every fever there is a diminution of digestive secretion, usually constipation, and an enormously increased radiation of water from the body; the absorption of fluids from the bowels is increased during a time when by reason of greater heat and lessened disinfection the bacterial operations are stimulated, and toxins are produced in larger quantity and probably of greater virulence. From these considerations the rule is deduced that in every febrile attack the bowels must be completely emptied and rendered as nearly aseptic as may be possible. This having been done, the affected nervous tissues, abnormally sensitive from the effect of the increased temperature, are not further depressed by being fed with a blood contaminated by fecal matter. The observation of very many cases of various febrile diseases has confirmed me in this belief, and I have been led to compute the part of the attack subtracted by the elimination of this one element as about one-third, or 33 percent, of the entire symptom-complex. If such an attack is thus deprived of one-third of its gravity, the dif-

ference in prognosis is far more than 33 percent.

This having been done in a case of poliomyelitis, the way seems open for a trial of zinc phosphide as above suggested. The great difficulty is that it is purely experimental. We do not know exactly what the remedy does, or may do, here or even in health. As usual in investigating drugs we come up against the blank wall of our actual ignorance of their exact nature and the influence they exert over the bodily functions. When we ask why any cure is effected we come to the point where experiments should be made and have not been; and the want of data that could be supplied in this way prevents us from comprehending drug action and extending the use of remedies found valuable in one case to others that may present similar features.

Has drug investigation been completed? It has scarcely begun. There is something in the salts formed by direct union of two elements not to be found in the oxygen salts. Calcium sulphide is not identical therapeutically with calcium sulphate. The phosphide is not equaled by the phosphate, or the nitrite by the nitrate. We standardize our nuclein by its content of phosphorus; we judge of neuro-lecithin as a phosphorus pabulum; we have had the hypophosphites urged as remedies for tuberculosis, the glycerophosphates as general vitalizing tonics, the phosphide of copper as an antituberculosis agent, and many other therapeutic suggestions based on the presence of phosphorus in the preparation; and all this on the assumption that phosphorus in some form performs valuable feats in the body. But just what does it do and how? Beyond the rather apocryphal repute of phosphorus in impotence, this element is scarcely established in any malady except rickets and osteomalacia, where its power of increasing the deposit of lime salts in the bones is utilized. While it has been recommended in neuralgias and many diseases of the central nervous system, Cushny questions whether it is of any real benefit in these maladies. Wood found phosphorus "apparently act favorably" in the acute nervous exhaustion of typhoid pneumonia. He pronounces it a nutrient tonic to the nervous system and as such applicable in chronic nervous exhaustion, threatening cerebral exhaustion, or myelitic paraplegia from excessive venery, but while mentioning other applications he does not give them his personal endorsement.

Like arsenic, we find plenty of testimony as to the toxic powers of phosphorus. It increases the autolytic activity of the liver, occasions the transfer of fat from the periphery to the internal organs where it is not wanted, and induces jaundice, necrosis, and connective-tissue hyperplasia. Phosphorus itself is not germicidal, since large colonies of microbes flourish on sticks of solid phosphorus; but neither is pure sulphuric acid caustic, and the phosphides may be more active in this direction. The control exerted over herpes zoster by zinc phosphide finds no explanation in any data furnished by the textbooks on therapeutics. That this control is nevertheless real may be proved by any who will put it to the test of actual clinical application. That alone can determine whether this power extends to the disease known as acute anterior poliomyelitis. The experiment is legitimate.

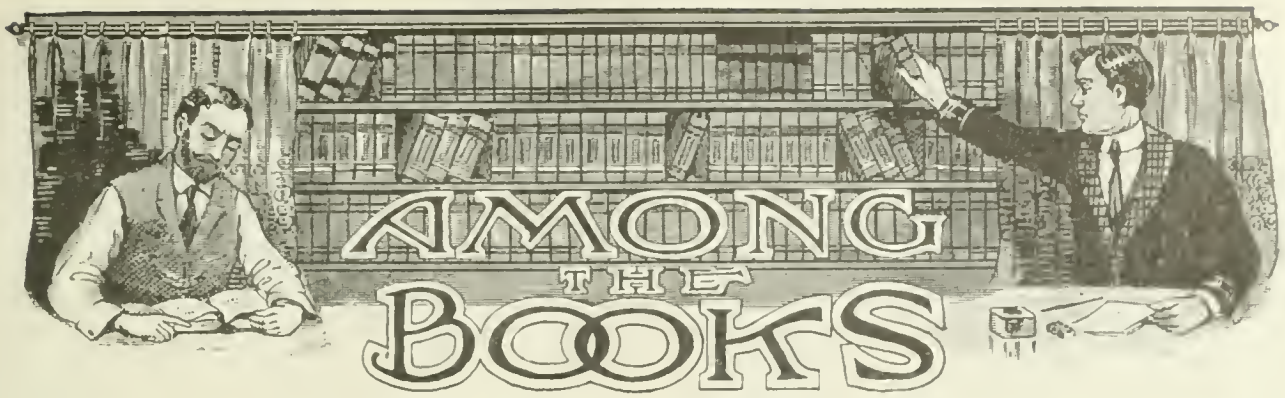
Zinc phosphide should be administered in doses not exceeding a centigram, for an adult, and one hour before meals so as to keep it away from the influence of the gastric juice. As a sedative in this group of affections gelseminine far exceeds morphine, especially in that the former tends to favor elimination instead of locking toxins up in the body.

William F. Waugh.

Chicago, Ill.

EXAMINATION QUESTIONS

1. Tell something of the etiology of acute anterior poliomyelitis.
2. What are the indications for treatment during the acute stage? Tell how you would treat a case.
3. What are the aims of treatment during the second stage? How do electricity, massage and mechanical movements prove useful?
4. Outline a scheme for medicinal treatment in the second stage.
5. Tell something of the value of phosphorus combinations in this disease.
6. How may gelseminine prove useful? formin? intestinal antiseptics? calcium sulphide?



CABOT'S "DIFFERENTIAL DIAGNOSIS"

Differential Diagnosis, Presented Through an Analysis of 383 Cases. By Richard C. Cabot, M. D. Profusely Illustrated. Philadelphia and London: W. B. Saunders Company. 1911. Octavo, 753 pages. Price, cloth, $5.50 net.

While the number of textbooks and monographs on the diagnosis of disease is large, the exceedingly difficult subject of differential diagnosis has been treated rather by the way, and hardly ever in a deliberate and special treatise, so that physicians often are obliged to search their memories for what they remember from clinical lectures or wade laboriously through textbook after textbook in the search for a particular discussion.

It does seem strange that the plan followed by many clinical teachers, of analyzing their cases from the *presenting symptom* up through the entire clinical picture or symptom-complex, and of discussing each possibility, has never been adopted in a treatise on diagnosis, but whatever may be the reason, Dr. Cabot is a pioneer in this as he is in other matters. In the language of the author, "cases do not often come to us systematically arranged like the account of typhoid in a textbook of practice of medicine. They are generally presented to us from an angle, and with one symptom, often a misleading one, in the foreground." This one symptom the author calls the *presenting* symptom, and from it he reasons upward, using it together with the other symptoms as *leads* to the actual seat of disease.

In this mode of reasoning a fair knowledge of the clinical pictures of diseases is of course prerequisite: for, as the author says very truly, "correct diagnosis depends upon what enters the doctor's head as possible and on what his head does to sift the possibilities after they have entered it, as well as on the direct recognition of signs by physical examination."

The subject-matter of the book is arranged according to leading symptoms, such as pain, headache, lumbar pain, general abdominal pain, fevers, chills, and so on. After brief general discussions of such symptoms as pain, fever, and so on, case-histories are presented, just as they were received, with the results of the examinations. In the discussion, the leading symptoms are considered and the different possible diagnoses detailed. The tentative diagnosis is then shown to be either supported or refuted by the further history.

In the selection of cases none were chosen in which the diagnosis was obvious and none in which it was impossible or dependent chiefly upon good luck. The cases which are described are such as may occur in any physician's practice, and their clear, concise discussion will, there is no doubt, aid many a practician in many a puzzling and difficult contingency.

The book has, however, another, and a very important *raison d'être*. Its careful study will not only teach us to recognize cases similar to those here described when we meet them, but it will insensibly teach us to adopt a like mode of analytical reasoning and to apply it to all cases that present themselves to us. We consider this by far the greatest merit of the work. For this reason, we can not call the unavoidable limitation in the diseases discussed a misfortune. The book might have been made twice as large and have given double the information, and yet it

would not have fulfilled its purpose any better. For, if we understand the author correctly, his principal aim was not so much to describe certain diseases. For that we have many excellent textbooks on diagnosis. It was rather to teach us to think constructively and to make our correct deductions from the symptoms together with the best means of examination and investigation at hand. This aim certainly has been accomplished, and the book is cordially recommended to every one of our readers.

H. J. ACHARD.

HARE'S "MODERN TREATMENT"

Modern Treatment. The Management of Disease with Medicinal and Nonmedicinal Remedies. By American and English Authorities. Edited by Hobart Amory Hare, M. D., assisted by H. R. M. Landis, M. D. Two Volumes. Philadelphia: Lea and Febiger. Price, per volume, $6.00.

Occasionally, among the multitude of medical books published, some work stands out preeminent, the importance or novelty of its subject-matter compelling the interest of a large part of the profession. Unfortunately the average textbook on Practice or Treatment contains but a small amount of really new and useful information, a preponderating proportion being rehashed material—the theories and methods in vogue fifty years ago presented in modern habiliments. To a certain extent this, of course, is unavoidable, for fundamental therapeutic principles and definite physiologic facts must be set forth by each author; still, too many writers turn out pretentious "textbooks" when a brochure or a small "handbook" would easily contain their individual ideas, so that it is necessary to wade through a sort of predigested cold collation in order to enjoy the *pièce de résistance*, while now and again—more's the pity—one finds nothing but the mere uncomforting "cold collation."

So it is a pleasure unalloyed to note that "Modern Treatment" is distinctly a new and most complete presentation of the subject discussed. Editor Hare points out that, whereas heretofore the means in our hands for the cure or alleviation of disease consisted chiefly of a limited list of drugs, besides climatic, hydrotherapeutic, and electrotherapeutic methods, we have, today, serums, vaccines, and specific remedial agents of inestimable value and which may be employed by the most remotely located physician.

The hard-working general practician cannot, by any possibility, read a multitude of books, neither can he keep *au courant* with therapeutic advances, by diligent perusal of medical periodicals; hence a book which places in his hands a complete summary of these matters is *essential*, indeed.

As we have so often pointed out, it is the man who treats his patients effectively who wins success, and to secure results it is necessary that well-tried and efficient remedial agents or methods be employed. We are passing through a period of change: theories advanced today are accepted or disproved within a few weeks and, not infrequently, things enthusiastically approved for a time are, upon more extended trial, utterly discredited.

The conscientious physician, therefore, will try to steer an even course; he will not be unduly conservative and practise medicine as his preceptor practised; neither will he adopt, offhand, every new method promulgated, and thereby endanger his patients as well as his own reputation. He will think seriously and hesitate before he uses a remedy on hearsay or on the advice of some self-appointed mentor, but when his own good common sense approves the newer procedures advocated by competent men, he will adopt them, possibly with modifications demanded in his particular line of work.

The man who from lack of knowledge (or energy) ridicules every modern therapeutic procedure, because it has not what he is pleased to call a "scientific foundation," is in reality *un*scientific. He is, moreover, likely to be *un*successful. The really competent practician of today must be an investigator; he must keep informed, and at least be prepared to test rationally presented remedies and methods. To that which proves good he must hold fast;

not so fast, however, that he can not drop it when something better is available.

The possessor of "Modern Treatment" will have a reliable guide along a none too easily traveled road. Volume I contains chapters on modern pharmacology and its bearing upon practical therapeutics; untoward effects of drugs; prescription writing; treatment of disease by nonmedicinal methods (climatic therapeutics, hydrotherapy, electrotherapy, rest-cure, serum therapy, glandular therapy, opsonins, vaccine-therapy, etc.), and an important discussion of tuberculin as a diagnostic and therapeutic agent. The treatment of the infectious diseases is also considered in this volume. Volume II deals with the treatment of parasitic, circulatory, digestive, and respiratory diseases, and diseases of diathesis. Special articles of the most practical character also cover diseases of the nervous and genitourinary systems, the skin, eye, nose, and throat.

Each volume contains more than 800 pages, while illustrations are used freely wherever their presentation aids a clear understanding of the text. No matter how many recent works the doctor may possess, "Modern Treatment" should be upon his table for instant reference, and the more hours he can devote to the study of its contents, the greater his success in the sickroom will be.

G. H. Candler.

SCHROEDER'S "OBSCENE LITERATURE"

Obscene Literature and Constitutional Law: A Forensic Defense of Freedom of the Press. By Theodore Schroeder, legal counsellor to the Medico-Legal Society of New York, and compiler of free-press anthology. Privately printed for forensic uses. New York, 1911.

"Obscene Literature and Constitutional Law" is the handiwork of Mr. Theodore Schroeder of the Boston Bar. Carefully and with painstaking energy and sincerity of purpose has this volume of some four hundred pages been prepared. It is an appeal to the medicolegal profession, to effect an enactment of law upon the subjects which are now tabooed by underlings who may or may not be intellectually capacitated for the task.

Dealing with the legal history, the book carefully reviews, analyzes and distinguishes the principal leading adjudication upon the subject. The author, in logical vein, covers and instructs upon the constitutional provisions regarding free speech and freedom of the press of many states.

The book is cleanly written, interesting, and worth the time of every interested person to read and learn. The subject is and will continue to demand more and more attention from the scholars of the day. Read, learn, and foster the desired purity to be obtained. The book is not for sale through bookdealers.

MORSE'S "PEDIATRICS"

Case Histories in Pediatrics. A collection of histories of actual patients, selected to illustrate the diagnosis, prognosis and treatment of the most important diseases of infancy and childhood. By John Lovett Morse, A. M., M. D. Boston: W. M. Leonard. 1911. Octavo, 320 pages. Price, cloth, $3.00.

Dr. Morse's book comprises one hundred actual histories selected to present, in the author's opinion, as thoroughly as possible, for physicians, a postgraduate clinical course in diseases of children.

Much attention is given to diagnosis, which is thoroughly discussed by naming diagnoses which might with some reason be made, and eliminating each in turn by careful reference to clinical signs and symptoms, the final diagnosis being that which cannot be set aside and which all symptoms support. However, treatment has received most attention. Both diagnosis and treatment have in each case been verified by subsequent history and so are considered to be correct.

The book is original and thorough, and the most interesting as well as the most valuable in this department for the general practician. A very complete index adds to its usefulness.

We understand that Dr. Morse's book forms the first volume of a series of case-histories to be published. Dr. Mumford's

"Case Histories in Surgery," according to advance advice received from the publishers, should be out by this time. The third book, Dr. Taylor's "Neurology," is said to be on the press, and Dr. Cabot's "Medicine," the second edition, will follow immediately after.

It has been found that books constructed on this plan have been, not only interesting to the reader, because presenting concrete examples of problems that constantly confront the physician, but have been found of the highest practical value and benefit. In studying definite cases from all viewpoints, such as they are taught by the very efficient staff of teachers of Harvard University Medical School, the tedium of mere theoretical reading is relieved, and the physician will constantly be reminded of similar cases he has encountered and made conscious of things he might have done, while he will also be confirmed in the management of those cases which he carried to a successful termination.

CUSHNY'S "PHARMACOLOGY"

A Textbook of Pharmacology and Therapeutics; or the Action of Drugs in Health and Disease. By Arthur R. Cushny. Fifth Edition, thoroughly revised; with 61 illustrations. Philadelphia and New York: Lea and Febiger. 1910. Price $3.75.

I have found the new edition of Cushny's work a notable advance on the previous ones. It is a reference book more for the scientific student than the busy practician, for the latter will not find the information sought in the generally desired tabloid form. Rather, he must hunt for it, and this chase usually will end by his sitting down to study the volume from beginning to end. This latter procedure is necessary in order to get the newer arrangement and ways of looking on the subjects discussed. The old clinical index is replaced by a scant five pages of a "Classification of Drugs According to Their Therapeutic Use;" which, however, contains the gist of the matter in compact form.

The author disdains to bother with crudities, and as a rule scarcely mentions these when an active principle fairly represents the plant, as in the case of aconitine, atropine, quinine, cantharidin, jalapin, colocynthin, santonin, strychnine, picrotoxin, hydrastine, caffeine, coniine, gelseminine, sparteine, nicotine, lobeline, agaricin, cocaine, yohimbine, pilocarpine, muscarine, physostigmine, veratrine, emetine, colchicine, saponin, sapotoxin, and solanine; all of which appear in the table of contents instead of in connection with the parent plants, and are discussed at length, the respective plants receiving but cursory mention. This, surely, because the therapeutic investigators are driven to the active principles to secure definite results from their experiments, and which may be of true scientific value.

The tendency to extract the clean alkaloids and then to throw them back into the dirt for medicinal use is rapidly subsiding, as may be seen by examining such modern treatises as this one.

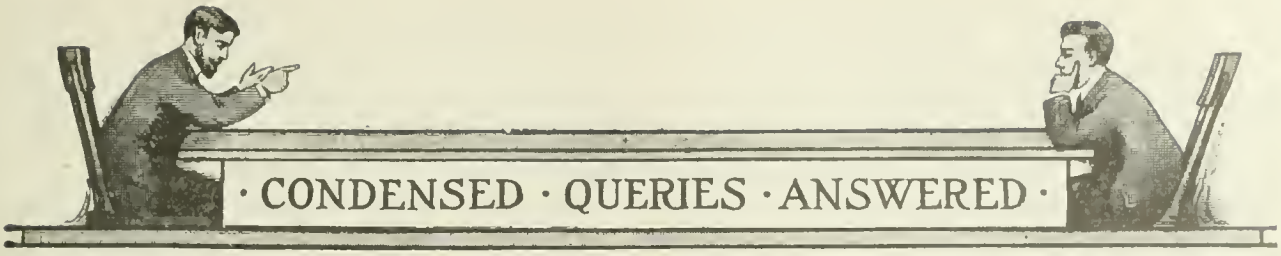
Cushny's work requires study, and merits study. The enormous advances that of late years have been made in this department may be appreciated only by such study of such works.

W. F. Waugh.

REED'S "DISEASES OF THE STOMACH"

Diseases of the Stomach and Intestines. By Boardman Reed, M. D. Third edition, thoroughly revised and largely rewritten. New York: E. B. Treat & Co. 1911. Price $5.00.

The third edition of Reed's well-known work on diseases of the stomach represents practically a new book, in so far as a very considerable portion has been rewritten. Like its predecessors, the present edition is essentially a practical working guide for the practitioner and does not enter unnecessarily into abstruse or involved discussions. About the text, it may be sufficient to say that it is even better than former editions. In addition to the description of gastrointestinal disorders from the physician's point of view it also offers interesting discussions of the surgical affections of these organs, which will prove of material benefit to the physician. The book is well printed and freely illustrated.



PLEASE NOTE

While the editors make replies to these queries as they are able, they are very far from wishing to monopolize the stage and would be pleased to hear from any reader who can furnish further and better information. Moreover, we would urge those seeking advice to report the results, whether good or bad. In all cases please give the number of the query when writing anything concerning it. Positively no attention paid to anonymous letters.

QUERY 5721.—"Chronic Mucous Gastritis." W. G. D., Illinois, sends the stomach-contents of C. F., taken one hour after eating the Boas-Ewald test breakfast. Only 3 1-2 ounces were obtained, the stomach-contents being so thick they would not flow through the tube. The patient is a man of thirty-three, single, weighs 130 pounds—about 10 pounds less than he has weighed before. Height, 5 feet, 9 inches; occupation, farming and real-estate dealer. Family history is negative, except that several brothers and sisters are more or less neurotic. He has had no venereal disease. Has always had more or less trouble with digestion. No other diseases. The present trouble began ten or twelve years ago and has continued, with remissions and exacerbations, ever since.

Pain is felt in the epigastrium about one hour after eating. Often, upon eating a full meal, he will feel quite comfortable for an hour or so, after which the sensation of boring, burning and fulness begins in the epigastrium, followed by belching of gas and a sour and burning feeling; no fluid comes up. There never is vomiting, but occasionally there is nausea at the beginning of a meal. Large quantities of water ease the burning sensation. The bowels are constipated; has no appetite; sleeps poorly the fore part of night, awakening in the morning depressed and without ambition. He has almost continuous dull, dizzy headache; complains of a sense of weakness and exhaustion.

The urine seems normal; heart and chest also. There is tenderness over the epigastrium. There is no spitting of blood or hematemesis. General appearance is bright and active; complexion normal. Genital organs are normal, except that he has had an operation for variocele and always wears a suspensory bandage. The pulse is 76, soft and regular. Tongue is coated. Mucous membranes look pale. A tentative diagnosis of ulcer of the stomach has been made.

The report of our pathologist upon specimen of the stomach-contents shows that your patient suffers from chronic mucous gastritis. We question the existence of ulcer, although, as you are aware, ulcers not infrequently complicate chronic gastric catarrh. It is rather a difficult matter to outline a definite treatment, for the reason that conditions vary from time to time with the individual, and the successful therapeutist modifies his medication to meet the requirements.

The basal indications may be epitomized as follows: Prevent further irritation of the already inflamed mucosa. Raise nutrition by administering food the feeble gastric juices are capable of digesting. Combat food stagnation; prevent autotoxemia; secure vascular equilibrium. No hard and fast rules can be laid down regarding the diet. Each patient requires individual treatment.

Very hot or cold foods or drinks are contraindicated, as are alcohol, tea, coffee, pickles, spices, condiments. Foods containing mechanical irritants (whole-wheat bread—containing bran—for example) are undesirable. Foods rich in sugar are prohibited, these undergoing fermenta tive changes. You must remember that hydrochloric acid is naturally an antiferment, but is present in only very small proportions. Food should not be allowed which cannot be thoroughly masticated, i. e., oatmeal, new bread, fried meats,

etc. Food saturated with oil is impervious to hydrochloric acid. The meals should be small and frequent, usually five a day. It is often desirable to begin with milk or cream, with or without raw eggs. Purees of vegetables are nutritious; soups and bouillons may be allowed. Cereals thoroughly cooked and finely divided are desirable. Pure meat juice is especially valuable.

Sanguiferrin or some similar preparation of bovine blood may be used; or the following: finely chopped, lean meat, mixed with a little salt, is placed in a double boiler, in the lower part of which warm water is kept at 120° F., for four hours. The juice is then expressed with a potato masher. As the digestive capacity increases, soft eggs, zwieback, finely minced rare meat, ripe fruits and a variety of cereals may be allowed. Give your patient enough food and a diet in which there is a proper balance of proteids, carbohydrates and fat. Very little fluid should be given with meals. Barley water, oatmeal water, grape juice, buttermilk, and light sour wines may be taken between meals. All food must be masticated thoroughly.

Instruct your patient to breathe deeply, and to take plenty of exercise in the open air. The skin should be stimulated by a cool salt sponge-bath upon rising, followed by vigorous friction. The extremities and abdomen must be kept warm, silk or wool being worn next to the skin. Massage of the abdomen is indicated.

Lavage of the stomach is indicated in practically every case. Wash out the stomach with hydrogen dioxide solution every day for one week, then every other day. Night or morning is the best time; never flush the stomach for some hours after eating, i. e., before digestion should be completed. After drawing off the hydrogen dioxide solution, wash the stomach with a weak solution of resorcin or a 1 : 2000 silver-nitrate solution.

One hour before the expected meal have the patient drink a pint of hot water and to take 1-3 grain of juglandin and 1-6 grain of hydrastin. Give, with the food, 10 minims of dilute hydrochloric acid in water. Papayotin or pancreatin with charcoal, an hour after food, will prove useful. Keep the bowels open. Try this treatment for a time, say thirty days, and then report conditions.

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Query 5722.—"Chronic Alcoholism with Cirrhosis." R. R. L., Oklahoma, has been treating, for alcoholism, a laborer, age 54. Height, six feet; normal weight, about 240 pounds. Previous health good. Father died with ascites—cause not known. Patient has mitral regurgitation of about three years' standing. Ascites, about a year and a half; beginning in lower extremities, but is now confined to abdomen. Dyspnea and cough, especially on exertion. Very marked cyanosis. Compelled to take whisky on rising in the morning because of dyspnea. Urine contains albumen and sugar. Unable to palpate liver, owing to ascites.

Patient has been given tincture of digitalis in 20-minim doses; purged freely with jalap and calomel. Small doses of spirit of nitroglycerin also were given. Under this treatment, the patient lost nine pounds in six days. At the end of that time improvement ceased. He was then purged freely with elaterium, the drug producing copious watery, green-colored stools. The doctor kept up the digitalis throughout, but no relief followed; instead, great gastric disturbance resulted, so that all further treatment was necessarily discontinued for a time.

The patient gradually regained his weight and soon became almost as before treatment. He would not remain at rest during treatment and as soon as improvement began persisted in overexerting himself. Suggestions are requested.

You have to deal with a very intractable condition. A marked alcoholic cirrhosis of the liver unquestionably exists. We should like to examine a specimen of this patient's urine before prescribing. State also the pulse-rate, condition of tongue, location of apex-beat, character of pulse, nature of stools. Does the patient perspire readily or is the skin dry? Any icterus? How much whisky is the man taking? We should certainly forbid it.

Scillitin may advantageously be given in alternation with cactin, and small doses of strychnine nitrate may be added. We should give scillitin, gr. 2-67; strychnine nitrate, gr. 1-32, every three hours; cactin, gr. 2-67 or even 3-67, morning, noon, and night. Blue mass with soda, 1-2 grain; podophyllin, 1-12 grain; iridin, 1-6 grain half-hourly from 6 to 9 p. m. every third night. Apocynin, grain 1-3, with a mouthful of hot water, six times a day for two or three days. Rest two days and repeat.

At the end of a week give your patient a thorough sweating in the hot-pack. Inject a full dose of pilocarpine as the skin begins to moisten. Rub in daily, over the liver, 1 dram of ointment of potassium iodide. A granule of glonoin may be used, with, perchance, a granule or two of caffeine when the patient first rises or a few minutes before he leaves his bed. After an impression has been made, leptandrin before meals, chionanthin after food, and full doses of convallamarin will probably meet the conditions. These are basal directions only; upon receipt of specimen and clearer clinical data, it will give us pleasure to serve you to the extent of our therapeutic ability.

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QUERY 5723.—"Whooping-Cough." J. L. W., Wisconsin, desires to know the dose for a child one year to five years old of a "whooping-cough" combination containing cicutine hydrobromide, gr. 1-134; lobelin, gr. 1-134; monobromated camphor, gr. 1-6; quinine hydroferrocyanide, gr. 1-67. He adds: "I have fifty-five cases of whooping-cough, two severe, with bronchopneumonia complicating, now in third week. Had one death in seven cases of this kind, an infant eight months old with whooping-cough eight weeks; the pneumonia lasted eleven days."

Once more we wish to urge upon our readers the undesirability of maximum and minimum dosage. The standard active-principle granule is, supposedly, the *smallest* known-to-be-effective dose for an adult. It would therefore be the average dose for a child under twelve. Most of the principles are presented in the sixths and the sixty-sevenths of a grain, or 1-67 and 1-134 of a grain, or even smaller quantities of the toxic alkaloids; the smaller dosage being, of course, indicated in pediatric work. We would, in this connection, call your attention to the answers to Queries No. 5558, March, 1910, and to No. 5680, March, 1911, issues of CLINICAL MEDICINE.

When dealing with single (and toxic) drugs (aconitine, atropine, strychnine, etc.) it is of course necessary to exercise care, but compound granules or tablets (i. e., "whooping-cough," "calmative for children," etc.) prepared especially for use in pediatric practice, usually represent one average dose for a child of one year or over. The only ingredient of the "whooping-cough" formula requiring care as to dosage is cicutine hydrobromide, and we should not hesitate to give 1-134 grain to a child one year old, and repeat the dose every hour or two until relief was secured or until the lobelin present in the formula (gr. 1-134) produced nausea or possibly vomiting. As you are aware, nausea in an infant is evidenced by whiteness about the mouth and nose and perspiration upon the forehead. As a matter of fact, the lobelin effect in this formula would manifest itself before any harm could possibly be done by the cicutine content.

For an infant five months old or less, make a solution with a little water, aromatic elixir, or glycerin and water. Give 1-4 to 1-2 a granule half-hourly or hourly; that quantity of the medication being contained in 15 to 20 minims of the solution.

Shaller's "aconitine rule" may be applied, if desired, to *all* toxic alkaloids. However, as you become familiar with the active principles, doctor, you will realize that the granule is in itself a small dose, and you will learn to give this quantity at intervals to effect, remedial or physiologic, selecting always the smallest dose for exhibition to children, unless urgent conditions demand the larger dosage.

Radue, in his "Diseases of Children," presents a very interesting and valuable dosage-table. For instance, in the giving of cicutine hydrobromide, the doctor recommends:

AGE	DOSE
10 years	12 granules of gr. 1-67 into 24 teaspoonfuls of water.....gr. 1-134
5 years	6 granules of gr. 1-67 into 24 teaspoonfuls of water.....gr. 1-268
3 years	4 granules of gr. 1-67 into 24 teaspoonfuls of water.....gr. 1-400
1 year	1 granule of gr. 1-67 into 24 teaspoonfuls of water.....gr. 1-800

The 6-months-old child takes half the dose quoted for the 1-year-old child. The above doses are given every half hour to hour until effect, then less often as required. As you will note, Dr. Radue gives a very small quantity frequently.

Personally, being thoroughly familiar with the drugs and their effects, we are inclined to give more appreciable doses. It might be well for you to feel your way for a time, following either Shaller's rule or basing your practice upon Radue's table.

With the exception of aconitine and veratrine, there is no granule listed that we should hesitate to give (where indicated) to a child of from 6 months to a year old, in from two to four doses, and we believe we get more rapid and better results from such medication.

Be *quite sure*, though, you select the right remedy. Familiarize yourself with the action of the drug and—when dealing with toxic agents—never dispense at any one time more medicine than can be taken with safety before the time of your next visit. Instruct the attendant how to detect evidences of drug sufficiency, that is, remedial action.

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QUERY 5724.—"Hypodermatic Treatment of Asthma." G. H., Texas, asks for "some data as to the latest hypodermic treatment of asthma." We do not quite grasp what specific information is desired. Asthma, of course, is regarded as a symptom. Hence, as it is essential to cure the *cause*, treatment *must* be based upon the underlying pathologic conditions. Relief of the asthmatic paroxysm itself is comparatively easily secured, and various drugs have been employed hypodermically for this purpose.

Some time ago a Washington physician recommended an antitoxin. Some patients were relieved promptly, but others died almost as quickly. Dr. Price of Mosheim, Tennessee, has used adrenalin hypodermically, with success; but here, again, it is necessary to proceed very cautiously. Injections of adrenalin have produced disastrous results. You may remember that some months ago crotalin injections were advocated. This agent, however, has practically been dropped from the armamentarium of the therapeutist.

As there is no accepted "hypodermic treatment for asthma," it would be impossible to supply you with literature upon the subject, although, as pointed out, several articles recommending the hypodermic use of various remedies have appeared in the journals from time to time.

In this connection, we would call your attention to the extreme efficacy of the combination of hyoscine and morphine with cactin. The asthmatic paroxysms are controlled almost instantly by one injection of the standard-strength solution.

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QUERY 5725.—"Mucous Colitis. Prostatitis." A. F. W., New York, would like to have any suggestions we can give in regard to the treatment of two of his patients.

Case 1.—Mrs. B., age 55, just past the menopause, for the last year has been suffering from mucous colitis. Our correspondent mentions that Osler says the condition is incurable, and he is almost of the opinion (from his own experience) that Osler is right. His patient will improve for a while, then get as bad as ever again. There is great tenderness over the abdomen, especially when the mucus appears in the stool. No other abnormality can be detected. Intestinal antiseptics, including the sulphocarbolates, salol, copper arsenate, and silver nitrate in small doses, have been used persistently. She improved much on chromium sulphate last fall, but does not seem to receive any benefit from that now. At present she receives hydrastis and nux vomica.

The treatment of mucous colitis usually proving effective in our hands is here outlined, but here, as elsewhere, it is necessary to modify medication from time to time, to meet the symptoms presented by the individual. It is well to bear in mind, in this connection, that this disorder may be

either of a neurotic type or purely inflammatory in character.

Nervous instability almost always exists and not infrequently there is a history of gastric hypersecretion or a hyperchlorhydria. Clinicians are beginning to believe that the arthritic diathesis is present in nearly every case of mucomembranous enteritis. It is quite possible, of course, that intestinal indigestion, with the resultant autointoxication, sets up the neurasthenic condition which accompanies mucous colitis.

You do not mention the presence of constipation. In most cases of mucous colitis, there are obstinate attacks of constipation followed by paroxysms of pain and passage of mucus-covered stools. Even when there is diarrhea, there will be more or less fecal stasis and accumulation of fecal matter in the intestine, which rarely (if ever) is entirely removed. The stools may be ribbon-like or the size of a lead-pencil (evidencing spasmodic contraction); again, hardened scybala or masses in some cases resembling sheep dung are passed; in still other cases the stool is formless, consisting of mucus mixed with feces; then, also, the stool may be coated. More rarely casts of the intestine are evacuated. Pain, as a rule, accompanies each movement of the bowels; it is sudden in onset, extremely severe, and usually accompanied by a distinct sense of faintness. Attacks of diarrhea appear at varying intervals covering periods of several hours or even days, and these almost invariably are followed by marked constipation.

As to treatment, throw into the rectum 4 ounces of olive oil to which has been added 5 minims of eucalyptol—the patient being in the knee-chest position; then inject 3 or 4 pints of warm decinormal salt solution, this to be retained as long as possible. Repeat these enemata every second or third day.

Internally, give atropine sulphate, gr. 1-1000 to gr. 1-500 three times a day; also hydrastin, gr. 1-16 and eupurpurin, gr. 1-3. In some cases hyoscyamine (gr. 1-250) does better than atropine. After a few days the atropine dosage may be reduced one-half, i. e., to 1-1000 grain. Before meals, the patient should receive juglandin, gr. 1-6, with nux vomica and capsicin. One hour after food, bilein, gr. 1-12, with pancreatin and sodium sulphocarbolate, gr. 1.

In very obstinate cases, 4 to 8 ounces of olive oil may be injected into the bowel at bedtime and retained through the night.

The diet necessarily depends upon the conditions present. Van Noorden placed the patient upon foods containing a large proportion of indigestible residue, i. e., graham bread and leguminous foods, vegetables containing cellulose, fruits with small seeds and thin skins. In addition, large quantities of fats. This coarse diet works beautifully in the large majority of cases, but if there is any blood or pus in the stools and the constipated periods are absent, it will be well to prescribe for a time mainly farinaceous foods, purees, gruels with cream, plenty of butter, and other substances rich in nitrogen, the idea being, of course, to exercise as slightly as possible the motor function of the intestine, and at the same time to nourish the patient thoroughly.

In a few cases sodium sulphocarbolate irritates the intestine. Here copper arsenate is the remedy of choice, 1-1000 grain of which may be given four times daily, in solution. Nuclein, 5 to 6 minims absorbed from the buccal mucosa, morning and night, will always act beneficially. (Do not use oil of eucalyptus, but eucalyptol.) Some very remarkable results have followed the use of calendula, with or without the addition of resorcin, and a soluble bismuth salt. The writer gives it internally and by enema. Much depends upon the extent of the intestine involved. If you have a copy of "Alkaloidal Practice," read the very interesting chapter upon this disease. Have specimens of feces and urine examined every ten days.

Case 2.—Mr. E., age 67, American, has always been healthy till about three years ago, when he noticed a slight difficulty in urinating. Since that time he has been taking "dope" from advertising quacks. When he came under care this spring, he had to urinate every ten or fifteen minutes, passing only a few drops at a time, with

much pain and tenesmus. The bowels frequently would move at the same time. He had hemorrhoids cured by injection. The urine appears normal. General health good. He works every day.

Treatment has consisted in urethral dilatation with cold sounds. At first a No. 9 was passed, with difficulty, but gradually the size was increased to No. 15, which now passes without much trouble. Tonics, urinary antiseptics, and chromium sulphate have been given. When he empties the bladder with a catheter, the patient can go quite a while without urinating, but so far there seems little real improvement.

We have not a clear-enough idea of the conditions present in this case to aid you very effectively. We believe dilatation of the sphincter ani and the administration of hydrastin, arbutin, and collinsonin, with, perhaps, minute doses of cantharidin, would prove beneficial.

Galvanization of the deep urethra and faradization over the vesical and sacral regions suggest themselves. We should like to have a specimen of this man's urine, besides a clearer idea of prostatic and deep urethral conditions. Is there much relaxation of the abdominal walls? Is the patient obese? Has he ever had venereal disease? Give us all the light you can, doctor, and we shall do our utmost to serve you.

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Query 5726.—"Psoriasis." S. R. E., Pennsylvania, asks us to outline the latest treatment for psoriasis. Patient, female, 35 years. Urine, alkaline, specific gravity, 1002. Has had psoriasis ever since she can remember. Of good weight, 135 pounds. Occupation, clerk. Nervous disposition. Bowels regular. Does not perspire freely. Has scalp disease of years' standing. This woman has to wear undervests with long sleeves and high collars all summer. Iodine seems to do better for the smaller lesions than anything else. The crusts have been removed with the aid of olive oil and alkaline baths.

We regret to say that no "generally efficacious" treatment for psoriasis has yet been devised. The underlying pathologic conditions (disorder of the body-chemistry) must be recognized and corrected.

It is absolutely essential that free elimination be maintained and nutrition improved. The patient must avoid overwork, worry, excesses of any kind, nursing or other drain upon the system. An acidemia exists in most cases. To control this, give sodoxylin, a level teaspoonful, dry on the tongue, an hour before meals. Bilein, pancreatin, and sodium sulphocarbolate an hour after meals. A saline laxative the next morning upon rising. The triiodides may be given between meals, or arsenic sulphide, gr. 1-67, after eating; alternating arsenic sulphide with the triple arsenates often proves desirable.

As soon as the acidemia is controlled, give, before eating, iridin, alnuin, and rumicin, 1-3 grain each. In all cases the scales should first be removed with warm epsom-salt solution and an alkaline soap. Carbenzol soap proves excellent, or you may use sapo alkalinus of the Pharmacopeia. To the denuded areas apply one of the following preparations: (1) Oil of cade, drs. 2; antiseptic oil, oz. 1. (2) Resorcin, grs. 10; tar ointment, oz. 1. (3) Chrysarobin, gr. 1; salicylic acid, grs. 15; ether, grs. 1; castor oil, m. 5; collodion, enough to make oz. 1. Apply with a camelshair brush. Then paint over the area with plain or benzoinated collodion.

The writer has treated several cases of psoriasis successfully, but the treatment has had to vary from time to time in each case. Indeed, doctor, it is impossible to outline a treatment for the *condition*. It is the individual himself who must be mended. The suggestions here given, however, will, we think, prove helpful.

If you have a high-frequency apparatus, use the vacuum-tube; or you may treat, twice a week, with one of the high-candle-power therapeutic lamps on the market. baking thoroughly at each sitting.

Lately, applications of antiseptic oil alternated with thuja and echinacea, equal parts, have given some remarkable results, the patient taking epsom-salt sponge-baths every other night (epsom salt, 1 ounce; water, 2 quarts; creolin, 20 minims).

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Prizes for the Most-Helpful Articles

IN order to ascertain from what our readers get the most help and what they like best, we have decided to offer a number of prizes, amounting to a total of $50 for each issue. The names of the prize-winners are to be determined by our readers themselves, by popular vote.

The first prize is to go to the author of the article, note or item published in this issue of CLINICAL MEDICINE which the largest number of our readers shall pronounce the most practically useful; the subject discussed may be surgical, medical or obstetrical, but it must deal with treatment. The matter of length is not to be considered at all; the primary consideration is *practical value.*

The second prize will go to the author receiving the second largest number of votes; the third, to the next on the list, and so on. The first prize will be $25 cash; the second, $15; the third, fourth and fifth, smaller amounts, possibly payable in books or other articles of value.

Members of the staff of CLINICAL MEDICINE, including Drs. Abbott, Waugh, Burdick, Achard, Epstein, Butler, Candler, will be barred from the competition. Please do not vote for them.

We want to know what you like. We also want to stimulate our readers to become contributors, not because we lack for material, but because we are anxious to give a maximum of the kind of material that our readers generally desire. We also wish to stimulate everyone to a closer reading of these pages.

Go through every page of this number and send in your vote at once. Vote for your first choice, or for five, in order of choice, as you prefer. You may write on a post-card if more convenient to you. If, as we expect, this test proves satisfactory, the prizes will be continued from month to month.

PREVENTIVE MEDICINE

THERE be three sorts of men as to the attitude they assume toward a proposed innovation.

1. Those to whom life is but a dull affair, a "demnition grind," welcome anything for a change, just because it is a change. To them agitation is the beginning of wisdom, contentment is sloth, and the gloss is off the new as speedily as the brilliancy of molten lead fades as it begins to cool. They are young, these modern Athenians, hence radical.

2. Others are well satisfied with the things that are and want no change. Their wealth of knowledge, opinions, beliefs, gear, has been earned by hard struggle in the battle of life. Dearly bought, it is dearly held, and they resent its undervaluing and the disturbance of secure possession. They are aging, hence conservative.

3. Nor old nor young, the enthusiasm of youth past, the mind still receptive, the solid substratum of the race receives, with question, yet receives; hears both sides and judges; takes no sides until the evidence is in, and controls the rashness of the one, arouses the other from sloth. Ready to learn, though demanding proof, willing to join the movement for the betterment of the race, but first asking if it be indeed a betterment.

It is obvious that a society, to prosper and progress, must contain all three elements; that each is a necessity to the other. One must be cautioned that the newest is not necessarily the best; the other must realize that it is the horse that pulls the wagon, while the brakes never lift a pound; the third will have no cause to judge unless there are plaintiff and defendant.

Now, doctor, we'll just proceed to classify you, by placing before you this proposition, to change the financial relations of our profession with the public to something more in harmony with modern conditions. Inherited from the days when the sick were brought to the temple, treated by the priest and tendered a testimonial of their gratitude, a voluntary honorarium, this pre- and most un-Christian ideal still exists in spirit, and sufficiently in fact to place us in this preposterous attitude.

Our charges are made when the patient is disabled, by sickness, from earning the money to pay us. The longer his illness, the larger our bill and the less his likelihood of paying. Illness resulting in death leaves us without recompense, except from previous earnings, and these by no means always available. Every effort we make to prevent illness leads towards our own starvation. The net result is that the profession as a body is desperately hard up, and is driven to turn its attention to outside means of getting support or to graft.

Turn to the picture presented by the plan suggested, that of level payments by the patient, in the nature of an insurance against disease. Let the doctor limit himself to the care of 500 persons, each of whom pays him a stated sum monthly—10 to 25 cents to the beginner, rising each two years to 50 cents, 75 cents and $1.00. For this he looks after their health, seeing each patient twice a month, looks into the sanitary conditions of house and vicinity, personal habits, notes disease tendencies or causes that may lead to disease, and advises concerning them; attends those who get sick, and seeks to prevent the spread of infection; does the medical, surgical, obstetric, and specialty work needed, unless in case where still higher special aid is required.

The advantages:

1. The doctor has a sure and adequate income, rising as his value increases, well within the patients' ability to pay.

2. The doctor becomes a practical sanitarium, and his success in preventing disease renders his work easier without cutting off his own livelihood.

3. The doctor is a better all-around physician, taking that comprehensive view of the patient that is lost by the specialist. The doctor learns to study each patient as an individual, to recognize the coming of disease in time to prevent it, or to catch it in the earlier stages when it is easier to manage. We should not have eye-treatment spoiled by fecal toxemia, nor should we have brilliantly successful operations,

when the patient dies of other ailments than that for which he was operated.

4. The advantages to the patient lie in the above—the prevention or early cure of disease, maintenance of working ability, security against sickness, expenses so crushing as to be unbearable, or his reduction to the pauper class with charity service; the study of him as a human being, and the skilled advice that leads to health, usefulness, and longevity.

5. To the community it is of advantage that every doctor becomes a personally interested sanitarian, seeking to ferret out and end the causes of disease; lessening the burdens of the community in the care of the helpless, and increasing the public wealth by keeping the producer at work.

Incidentally, it puts a quietus on the silly talk of overcrowding the profession, by setting every idle member to work, showing that the apparent surplus is merely due to our neglect to fulfil the duties we ought to assume. For the doctor who undertakes the direction of 500 persons has no spare time. He should see each at least twice a month, at home or workshop, making 1000 visits, or 40 for each day, allowing 25 working days in the month. Then he has to see to those who may be ill, do medical, surgical, obstetric, gynecologic, pediatric, geriatric, orthopedic, proctologic, ophthalmologic, otologic, rhinologic, neurologic, psychologic, and other stunts, test and remedy hygienic conditions about the premises, wake up the authorities as to defective matters in streets, alleys, water, gas, schools, etc., do his laboratory testings, studying, recording, and keep up with the times by visits to the centers of medical learning. Really, do you believe he will have much idle time? Can he do all this the way it should be done, for 500 persons?

By this plan, doctor, patient and community are brought into perfect accord and harmony of interests along the most approved lines of modern development.

Some results: It has long been known that certain diseases are transmitted only by infected feces, sputa, urine, flies, fleas, mosquitoes, food; that in each case such infections may be prevented by measures known to us. Let every doctor comprehend that it is his duty and interest to have the preventive measures effectively carried out, and in a few years these maladies will have been eradicated.

A few years ago it was found that there was a direct relation between the prevalence of cancer and the use of certain forms of food. Does every doctor know this, and inculcate its importance upon his patients? Or do the German practicians of Chicago still allow 25 percent of their German-born fellow citizens over 40 years of age to die of cancer?

Lastly—is it also least?—this plan would abolish "graft" in medical practice. If you read "Artemas Quibble," in *The Saturday Evening Post*, you will have been struck by the statement, "The criminal lawyer first scares his patient thoroughly, then ascertains how much money he has, then gets it." Please, it is the lawyers who do this—not the doctors! Were there any grafters in medicine who pursued this course, they naturally would oppose energetically this suggested readjustment of our relations with the public. It would be grossly unjust to assume that all who oppose it were of this class.

Having presented the plan, it is up to you to discuss it, and present the arguments, *pro* and *con*.

To make an easy job difficult—put it off as long as you can.—Silent Partner.

THE PERSONAL SIDE OF THE DOCTOR'S LIFE

I.—THE DOCTOR'S CLOTHES

Costly thy habit as thy purse can buy,
But not expressed in fancy; rich, not gaudy;
For the apparel oft proclaims the man.

In one of his latest detective stories Dr. Conan Doyle introduces his hero, Sherlock Holmes, in the act of examining an old, battered felt hat. Through his skill in inductive reasoning, just from that hat, he was able to reach the conclusion that the wearer was a man of high intellectual capacity; that within two years he had been well to do, but now was in straightened circumstances; that he was close-shaven and used a certain kind of "lime

dressing" on his hair; that he lived in a house which was not supplied with gas; and that he had degenerated morally, and probably had fallen into habits of drink.

There are few who can analyze character from an examination of a cast-off garment, yet nearly everyone of us, consciously or unconsciously, is influenced in his opinion of the man he meets by the clothing they wear, and how they wear it. It is equally true that others will be influenced in their opinions of us in exactly the same way. Since success is the result of many complex factors, no ambitious man, desirous of working his way from rung to rung upward on the ladder of life, can afford to neglect any single point which may contribute to the ends toward which he aims, no matter how inconsequential it may seem. There is not the slightest doubt that a dirty collar has turned the tide from success back toward failure; and that uncleaned finger-nails have been the nails in the coffin of many a pretty ambition.

A man's tastes in clothing inevitably reflect his tastes in what we are pleased to call the "higher life." An exact man of quiet tastes, who revels in figures and glories in details, who gets his literary pleasures from Jane Austen and his wildest excitement from a game of checkers, could no more be happy in a pair of heavy box-toed shoes, with a bright-green tie, trousers bagging at the knees and a fancy vest, than a loud-voiced, bumptious sporty individual would be satisfied without showy apparel, as varied in hue as the garments of Joseph.

The doctor may well, therefore, give some play to his individuality in the choice of his garments, though, if his taste be poor, he should consult his good wife, and temper his tastes according to her advice. But there are certain canons which he should always respect, for since "the garment oft proclaims the man," the physician, of all men, must see to it that it proclaims him the kind of man that people can respect.

Get clothing that *fits*. If you are one of the few of the Adonis forms who can wear "ready made," well and good—you are in luck; but the average man will do better to have his clothing made for him by a good tailor. The cost is only slightly more, and if the suit is well cared for it will last enough longer to pay the slight additional expense.

Select fabrics of good quality. American-made woolens which are cheap as well as serviceable are now available, so that the material is not necessarily expensive.

Avoid extremes of fashion—indeed, avoid extremes of all kinds in dress. The professional man should in everything appear the man of culture, and men of that stamp should avoid slouchiness on one hand and mere showiness on the other.

Don't choose gaudy colors. The passer-by will look at the gaudy garment and form his estimate without hesitation, and if he looks at your face at all, it will only be to criticise. Dress "up to your good qualities," away "from your bad ones," whether physical or mental. You want people to know the best that's in you.

Cultivate habits of good taste. Learn what it is. Take lessons from your tailor and haberdasher, and get the ideas of men and women who know when things are *right*. A fat man who picks out a loosely woven fabric which bags at the knees before his trousers are a week old, or selects a coarse, brightly colored plaid which makes his waist line look twice as large, or anyone with large feet who buys a pair of tan, white, red or other conspicuous shoes, needs a private course in esthetics. People who do not know what that word means will be quick to perceive that the doctor has poor taste, whether he has good sense or not.

The slim man should avoid the "up and down" stripes, the fat man those that "run around," the red-faced man should avoid red ties, the big-headed man either very large or very small hats, and the short man a bob-tail coat or a low hat.

Keep your clothing well pressed. Every little town now boasts its tailor and its cleaner, and if yours should not be supplied, then do this work yourself. Ten minutes twice a week will suffice, and the time thus spent will pay better dividends than any mining stock with which I am at present acquainted.

There is one unpardonable sin in dress. Uncleanliness can never be forgiven or

condoned. Even if your clothing be threadbare and of last year's pattern, you can at least be neat. Keep your clothing well brushed, free from specks or spots, unstained by drugs or secretions, and unscented with the odors of the stable or the pharmacy—even with those of the perfumer. Your hat should be kept brushed, your shoes shined, and your handkerchief should ever be as clean as your hands, and they should be as clean as soap and water can make them.

Are these things inconsequential? As compared with the acquisition of knowledge of our art and the ability to use that knowledge with skill and intelligence, they are. But in no other respect. Life is a composite thing. It takes more than ability, more than enthusiasm, more than self-faith, more than work to make it a success. It takes all these things, plus tact, plus personality, plus the many little things that serve to impress our characters, our good qualities, even our existence, upon the minds of others. The man who is determined to go to the front will leave none of these "little" things unstudied. A man's personal appearance in hundreds of instances has been a factor for or against his employment. Your first duty is to *get* the chance you are looking for; then it's up to you to make good. How can you rail at fate if you cast aside as "inconsequential" the opportunity that even now may be knocking at your door?

The test of character, the measure of backbone, is the ability to say "No."—William C. Hunter.

HOW THE PATENT-MEDICINE MEN GET CUSTOMERS

There has recently come into our hands a circular sent out by a house which advertises itself as being "the largest medical-list house in the world." It supplies its patrons with the names of persons afflicted with all kinds of ailments.

Here is the list of diseases, for each of which this firm professes to be able to give the names of from 1000 to 50,000 sufferers:

Intestinal complaints, rheumatism, constipation, dyspepsia, nervous debility, female troubles, obesity, facial blemishes, piles, skin diseases, neuralgia, catarrh, bronchitis, asthma, blood poison, bust developer, consumption, drunkenness, eczema, epilepsy, hair diseases, heart diseases, morphine, paralysis, syphilis, stomach troubles, kidney complaints, and "all kindred ailments."

There is an extra charge for lists of people suffering from cancer, rupture or deafness. While ordinary diseases are rated at only $5 per 1000 names, these aristocratic morbidities cost the inquirer four times as much, or $20 per 1000 addresses. Presumably lists of people who are thus afflicted are four times as valuable as the ordinary kind to these medical harpies.

The scheme is that the patent-medicine man or the quack doctor who gets one of these lists can use it for personal solicitation through "follow-up letters," and, by preying upon the fears, ignorance and gullibility of these poor, sick devils, the quack will be enabled to bleed them of every available dollar. Thus we are informed that these medical lists are "absolute fortune-producers." No doubt they are!

Here are some of the people who use these medical lists, so we are informed:

Dr. R. V. Pierce
Dr. F. E. Greene
Sterling Remedy Company
World's Dispensary Medical Association
Dr. L. R. Williams
Riker Drug Corporation
Lydia E. Pinkham Medical Company
C. I. Hood & Co.
I. S. Johnson & Co.
Dr. Hartman, Peruna Drug Manufacturing Company
Standard Oil Company
The Hegeman Corporation
Munyon Remedy Company

Scan this list of names carefully. Note that the Standard Oil Company rubs shoulders with Peruna, and that the Riker Drug Corporation, which is the owner and promoter of one of the big chains of drugstores in the East, hobnobs on friendly terms with Munyon of the uplifted hand, and dear old Mrs. Pinkham, "the woman's friend."

They are harpies, all of them, and we cannot even except our old friend, Standard Oil, which, it seems, is extending its tentacles out into the patent-medicine field, as it has into the retail drug business, evidently determined to let no opportunity for profit, no chance to grasp the unwary dollar, go untried.

Doctors who are intent upon defending their own interests do not want to forget that there is such a thing as the patent-medicine octopus. The fact that this grasping and unclean business has been getting something of a "black eye" of recent years, through the pages of such magazines as *Collier's* and *Ladies' Home Journal*, should not mislead any physician into the belief that the devil-fish is dead. He is not dead; he has simply changed his tactics. Watch him, brother doctor, and wherever you see signs of renewed activity, just get busy.

Keep on dreamin', it won't hurt y';
Let the world know you don't care,
Though the wild winds rage an' ruin
All your castles of the air.
Sing your song—if it's a sad one,
Better sing it mighty low,
But if there is sunshine in it
Lift your voice and let us know.

—John N. Beffel.

SKEPTICISM BRED BY SPECIALISM

In *The Toledo Medical and Surgical Reporter*, Beverley Robinson discusses skepticism in the use of drugs. He says that drugs as usually given frequently increase the functional disturbances they are intended to correct. Further, pathologic conditions cannot always be detected during life and made the basis of drug-treatment. And to this he attributes the fact that many good remedies once in vogue are no longer employed, and yet unquestionably have value.

Dr. Robinson illustrates by speaking favorably of blood-letting, done to relieve a burdened heart and to open the way for the action of drugs. He believes also in the use of the same remedy at the initial stage of pleuritis or even of appendicitis. Furthermore, for old adhesions, repeated blistering or cauterization should not be ignored.

How can we rid the public of the skepticism proceeding from false teaching? We answer, only by abolishing quackery and fraud. And this end can be reached solely through constant honest teaching and honest practice. The patient should place himself in the hands of the wise, conservative physician of unblemished character, inasmuch as the family physician knows the whole man, but the specialist only a part, and the part can never be disassociated from the whole altogether without probable resulting injury.

This latter statement should be taken in connection with an interesting editorial by Dr. Parkhurst which recently appeared in *Hearst's Examiner*. The latter says that specialization contracts the area of a man's efforts and compels him to travel in a narrow road; his steps are monotonous and his prospect is limited. He compares the specialist to the man who runs a country store in distinction to one who heads a department in a city store. The work of the latter might be done by a slot-machine. A knowledge of the detail is acquired by the specialist, but minute knowledge produces a minute man. One who spends ten hours a day pointing needles himself becomes exceedingly sharp in that particular chore, but looking at small things makes one small. Watch cleaners usually grow short-sighted. Governor Wilson of New Jersey applies the same principle to the legal profession.

The difficulty is that the specialist is unaware of his limitations. Knowing his department so thoroughly that he is enabled to instruct anybody outside the same, he is unconscious of the fact that his ignorance about the rest of the body seriously diminishes his efficiency in his own specialty.

It all comes back to the same old thing: the powers of the human intellect are limited, and what is gained by concentration in one direction is lost in another.

The term "medical profession" ought to be divided, the therapeutic sleepers, iconoclasts, naughts, cowards and mugmumps should be classed as the non-medical profession.—Bulletin-Journal of Animal Therapy.

THE UNFIT

Sinclair has written a paper on the unfit that is worth considering. He describes six classes, as seen in the following:

First: The always-tired. The detection of hookworm has lifted the stigma from a section of our country, by showing that the southern cracker had a good reason for his leisurely ways. Brunton goes further, and Sinclair agrees with him, in the connection between inertia and fecal toxemia.

The depressing influence of these toxins rests upon muscle-fiber and nerve-cell.

Second: As to the feeble-minded, Sinclair declares there is a direct connection between weak intellects and unbridled sexual impulse. The degenerate's family averages seven children where the normal family numbers but four. While this may be relatively true, it is also true that the greatest men have invariably been men of strong sexual passion, so strong, in truth, as to overcome law and all other considerations. Scarcely a great leader of men can be named of whom this is not true. Since, then, the great and the lowly, the conqueror and the degenerate, are alike susceptible to the woman's charms, the inference is clear. But the preponderance of posterity to the unfit is not well. Two remedies are possible, namely, the development of the weak, and the limitation of their offspring. The latter can and should be applied in the case of the criminal and insane; and this would be no small advance in sociology and in eugenics.

Third: To the epileptic this applies as well. Sterilization may be advocated here, especially as such persons are extremely liable to sexual crime when temporarily deranged. Sinclair urges that the marriage of epileptics should be legally prohibited, but this is folly. How shall the law refuse to any person the one legitimate exercise of his functions?

Fourth: To the criminal, sterilization is a welcome boon. He wants no children and, as a rule, assents to the operation without objection. But the vital question of the disposal of the exconvict after his first term, so that he shall not be forced into the habitual criminal class, needs especial attention.

Fifth: The inebriate. Here we run upon that principle of the law that is otherwise expressed in the legal maxim of *caveat emptor*. Law seeks to regulate, not to direct, the activities of men. It does not seek to compel men to morality, or truth, or justice. Otherwise we might burn our statute books and take the Golden Rule as the one only standard, judging all human actions thereby. Someone has said that men are wolves, and the law merely prescribes the rules under which they may prey upon each other. The law recognizes the inebriate's (legal) right to ruin himself and his family, if he so chooses. Too close regulation, too much interference with individual liberty is unwise. Men must not lose the sense of free will or of responsibility. They must look after themselves, or suffer the consequences.

But society would be the better if the hopeless inebriate were placed under restraint. Yes, but how accomplish this without opening the door to cruelty, to deprivation of liberty and property, under this plea? It would be a perilous experiment in legislation.

Nothing lubricates the machinery of endeavor like that oil of gladness, expressed warm, hearty, honest praise.—A. S. B.

"THERAPEUTIC DELUSIONS"

Blest is the man who knows what he knows, and knows that he knows it; but the man who assumes that the little he thinks he knows is the eternal Alltruth, is—not blest.

Now, Dr. Henry Farrell of Nebraska doesn't know very much about therapeutics, but he has been reading; and finding some pessimistic smart sayings in the writings of Schmiedeberg and of some other pharmacologists who mistakenly think they are *therapeutists*, Dr. Farrell copies out a lot of their twaddle and fires it into the Republican Valley Medical Association.

It's a curious commingling of half-truths assumed to be whole truths, of true premises and unwarranted deductions. The test tube is the thing! Anything done in the laboratory is all, and can be applied to the human being without disturbing the equipoise of a bacillus. That intangible, imponderable, untestable thing called vitality is not taken into consideration. How easy it is to establish your case if you ignore all the arguments on the other side. But it's a matter to be bewailed that so few of the men who have been teaching therapeutics in the colleges all these years, and presumably know nothing by themselves, should neglect to accept the dicta of the eminent council, and quit.

So our parrot repeats his lesson made in Germany: Alcohol doesn't stimulate; ether hypos are no good in shock or collapse, nor is nitroglycerin; colchicum only disturbs the digestion; dyspeptic tablets are —wow! Viburnum isn't mentioned by Hare, Cushny or Wood, as to its therapeutic value, "therefore" (we quote verbatim) "we conclude, and rightly, that it has none." That is surely "going some." Unless these three worthy folk deign to mention a drug, it is worthless. Talk about hero-worship!

How about new things—would they be worthless until the immortal three voiced approval, and immediately after it would take on therapeutic worth? Suppose we were giving a patient the new drug, with no effect at all, until July 31, at 3 p. m., when Dr. Hare completes his study and concludes the drug is good—at once it begins to exert its powers—is that it? And how about those others—Brunton, Murrell, Liebreich, Nothnagel, to say nothing of our own Osborne, Butler, Sollmann, and even the mighty Council? Only the Three have the divine gift of imparting efficacy to drugs by the stamp of their approval.

Funny, but one of the three, Prof. Hare, has but recently placed the stamp of his hearty disapproval on this whole presentation of Dr. Farrell's originals, emphatically protesting against the judgment of drugs by pharmacologists, and quoting with dissent the very examples Farrell mentions.

Other tried and trusted remedies meet similar condemnation. Sir James Y. Simpson was mistaken in attributing to cerium oxalate the power of sedating an irritated stomach; valerian is worthless in hysteria; olive oil doesn't relieve the pain of gallstones, the patient only thinks so while taking it; phosphorus and the hypophosphites do not cure. We get lecithin in our food, so can not be benefited by taking it as a medicine; and as that applies to iron, lime, soda, potassa, sulphur, oxygen, fat, and many other agents used as drugs, their uselessness goes as a matter of course. Certainly the intestinal antiseptics couldn't suit Dr. Farrell, although at least fifty thousand American doctors could enlighten him. Chromium sulphate is his latest delusion.

He winds up with a paragraph that relegates to the demnition bowwows potassium chlorate, adrenalin, lithium salts, "ferric hydrate and magnesia in arsenic poisoning, calcium salts and tannic acid in internal hemorrhage, turpentine in phosphorus poisoning, sparteine sulphate as a heart stimulant." He must have forgotten poor old calomel. And then he ends with this astounding contradiction of his whole address: "One of the most important questions confronting the medical profession to day is that of rational and intelligent therapeutics."

This ought to have preceded the article, for it furnishes the key—the essay is a joke, whether intentional or not.

Why don't people stick to the commonsense rules that govern the taking of evidence in a court of law? All a witness has to do is to tell what he knows—the truth, the whole truth, and nothing but the truth. Men like Farrell will persist in saying what they think, or think they know, or assume to be so, and they arrogate to themselves attributes no mortal ever has possessed or ever will possess. Had he said that *he*, himself, could do no good with the remedies condemned, we could have agreed with him. If he had gone further and had asserted that nobody else could get any good out of them, we should have protested against his assumption that his knowledge and skill comprised the sum total of all these attributes possessed by the entire medical profession. But when he goes so far as to declare that these remedies have no values at all, we see him assuming that his small store of knowledge comprises all the truth that exists, and that we concede to the Almighty alone. And we who have studied diligently all these long years and don't know very much yet, hide our diminished heads when we realize that this superhuman store of erudition has been gathered in the four brief years since Dr. Farrell stepped out of the Maryland Medical College with his diploma not yet dry.

The matter goes far beyond Dr. Farrell and reaches to the experimental pharmacologists, who of late claim that therapeutic

investigation ends with the test tube, ignoring the third testing, which is the most important of all, that upon human beings when affected by disease.

I have placed [illegible] CLINICAL MEDICINE, has been worth [illegible] thousands of dollars to me.

Every number of CLINICAL MEDICINE has suggestions of this kind [illegible] every physician who does [illegible] carefully from beginning to end [illegible] mistake. However [illegible]

CYCLIC VOMITING AND FECAL INFECTION

In *The Lancet* for July 1, Mellanby describes a case of cyclic vomiting. The patient, a boy of six years, had thus suffered periodically nearly every month since his birth. The attacks lasted several days, with vomiting, great prostration, fever, and constipation. During this time his weight fell off about two pounds. The urine was scanty, on one day (being only an ounce), specific gravity 1035, containing acetone, and diacetic acid.

The cause is obscure and various explanations have been offered. Langmead sees in such cases intestinal toxins inducing fatty infiltration of the liver. Howe and Richards look to a shock deranging the nervous equilibrium and metabolism, with excretion of unoxidized products into the alimentary canal. They also note the appearance of indol in the urine during the paroxysms. Ewing blames the liver, with intestinal toxins. Comby sees in these cases chronic appendicitis. A. E. Roussel found in one case pyloric stenosis, and this points to the need of more careful examinations of the bowels.

It is admitted that cyclic vomiting depends on acidemia, and this Mellanby ascribes to intestinal toxins acting on the liver. He found his patient excreting much creatin during an attack, while a normal child excretes none. This child always excreted creatin; showing the cause to be always present, the disturbance occurring when the toxins accumulated. Since acetone appeared in the urine only after the attack was fully established, it seems that this substance is an effect rather than a cause of the paroxysm. The acetone stopped when a supply of glucose was given to the child. As the acidosis subsided, so did the excretion of creatin, which was replaced by creatinin.

When carbohydrates were cut out of the diet, acetone and creatin appeared in the urine, but the child remained well, proving that acidosis was not the direct cause of the cyclic vomiting. Nor did the addition of fat to the diet determine an attack.

The conclusion reached from the study was that the attacks depended on some constantly active intoxication in the portal area. Bacterial infection was excluded by blood and urine cultures. The condition might depend on excess of betaimidazylethylamin formed in the intestinal wall.

Examination of many urines shows that all cases of acetonuria are accompanied by creatonuria, but the reverse is not true. The creatonuria of hepatic cancer is not associated with acidosis, unless the patient is starving.

The importance assigned to the presence of the acetone in diabetic coma is ludicrous. The failure of the alkali treatment, the diabetic's free acid excretion for years, without symptoms, the unchanged alkalinity of the blood-plasma in such patients, while in acidosis produced by acid ingestion the alkalinity increases, the occurrence of dyspneic coma in nondiabetic cases, and other points, can be urged against the direct causation of coma in diabetes by acids. The inability of the liver to use carbohydrates has not been enough considered.

Mellanby suggests that when severe symptoms accompany acidosis, and in diabetic coma, one most important factor is the absence of glycogen in the liver-cells, lessening its power of neutralizing toxins, and allowing the diffusion of intestinal toxins other than acids through the organism. The method of combating nondiabetic acidosis by glucose in large doses seems more scientific than giving alkalis. "Even if the causal connection between acidosis and diabetic coma is accepted, there can be but little doubt that the acidosis as such accompanying fever, gastroenteritis, delayed chloroform poisoning, cyclic vomiting, and many other conditions,

is never of symptomatic significance. The term acid-intoxication is here a misnomer." In the case of cylcic vomiting it had nothing whatever to do with the attacks.

Years ago we became impressed with the profound importance of the retention and reabsorption of fecal matter. We asked ourselves why, when a mere whiff of sewer gas was so deadly, a man could carry about inside his body pounds of this toxic matter, for weeks or months, with impunity? The answer is gradually shaping itself—he can't! From every side investigations are leading current opinion to the position we took up clinically. Fecal matter is poisonous, and when retained in the bowel beyond the normal period, toxins form in it, are absorbed, and induce more disorders, physical, mental and moral, than are yet suspected.

Let any reader who feels the burden of life weigh heavily upon his spirits take pains to empty his bowels completely and absolutely, and note the sense of rejuvenation—the alert, light, happy keenness of intellect—the bouyancy—the fitness, that follows. Wouldn't you like to feel that way always?

The next and perhaps the greatest of the surgic fads is going to be the removal of the colon!

CONSISTENCY THOU ART A JEWEL!

Jewel No. 5

The July number of *The California State Journal of Medicine* contains on its first page an editorial castigating the official journals of the state medical societies of Michigan, New Jersey, Kansas, South Carolina, Minnesota, Oklahoma and Ohio for the publication of advertisements of proprietary medicines not approved by the Council on Pharmacy and Chemistry of the American Medical Association.

Just two pages over, also in the editorial department of *The California State Journal of Medicine*, we find a laudatory editorial praising salvarsan, the new patented proprietary, newspaper-promoted specific for syphilis. Presumably this free "advertising" was donated.

So far as we know, salvarsan has not yet been officially recognized by the Council on Pharmacy and Chemistry.

Isn't she a "jewel"?

chlorate, adrenalin, lithium salts, ferric hydrate and magnesia in arsenic poisoning, calcium salts and tannic acid in internal hemorrhage, turpentine in phosphorus poisoning, sparteine sulphate as a heart stimulant." He must have forgotten poor old calomel. And then he ends with this astounding contradiction of his whole

HELPS FROM "CLINICAL MEDICINE"—A HICCOUGH CURE

While one of our staff was traveling by train from San Francisco to Portland, after the meeting of the American Medical Association, he made the acquaintance of a gentleman who turned out to be a physician, and, like many other physicians, was an enthusiast about Clinical Medicine. He told this story:

"Do you know, I got one item out of the Clinic a few years ago that gave me a peculiar reputation. One day I was called to see a case of intractable hiccoughing. The patient had had two or three other doctors and none of them had succeeded in stopping it. I tried the usual things, and still that fellow went right on hiccoughing. What to do, I did not know. I ransacked my brains and then all at once it occurred to me that I had seen something in the Clinic about stopping the hiccoughs. I went home and looked over the back numbers, and sure enough there it was. I thought I would try it, though I didn't have much faith. So I went back to the house of my patient and I did just as the Clinic had told us to do, and sure enough the hiccoughing stopped like magic.

"Well, everybody had heard about that case, and it wasn't long before I was called to see another one. I didn't suppose the scheme would work the second time, but it did, and that helped to advertise me. Before long I was a 'specialist' on hiccoughs. When called to a patient I would go into a room alone with him, and invariably I would stop it almost immediate-

ly. The other doctors could not understand it, and wanted to know what I did.

"'Do you hypnotize them?' asked one of my professional friends. That simple idea, and it is only one of the many which I have gleaned from the pages of CLINICAL MEDICINE, has been worth hundreds, yes, thousands of dollars to me."

Every number of CLINICAL MEDICINE has suggestions of this kind, and every physician who does not read its pages carefully from beginning to end is making a mistake. However, I think some of you are wondering just what it was that this doctor used to stop hiccough. For their information let us reprint it here:

"Have the patient place his thumbs firmly in the ears and the middle finger of each hand upon the nares, so as to occlude both passages, then let him exhale all the air in his lungs, and while the lungs are collapsed, let him sip ten separate swallows from a cup of *cold* water held to his mouth by another person. As he takes the last swallow, let him release his nose and ears and take a deep inspiration."

This sounds very simple—so simple that many physicians will undoubtedly think it not worth trying. However, if you don't have faith, you can at least try it. Once in a while it may be necessary to repeat the procedure, but not often.

CURING ALCOHOLISM

In *The Saturday Evening Post*, Jack London has a story worth reading, and more. A wealthy young man is cursed with an insatiable thirst. The captain of a vessel navigating the South Seas, where London's recent tales (the fruit of his ill-fated cruise in the "Snark") are located, takes the "souse" with him, cuts off his liquor, restores his health by hard work, and when on the first opportunity the man indulges in a debauch the captain administers a sound thrashing. Then he sets the man to work again and keeps him at it, until time, abstinence, returning muscularity and manhood give him self-control.

How nice it reads, and what an ideal method of treatment! Who has ever treated one of these men but has fervently longed for just such a chance, to stand up before the fellow and, man to man, administer to him the jamdest licking a human being ever received? If ever a remedy was needed, it was just that, and how it would have worked! Just as a little means of emphasizing the solid truths one had been pouring into inattentive ears for hours, days, weeks, months.

If Jack London will get up a law placing the inebriate at the doctor's disposal in the manner depicted in that tale, we can promise him the enthusiastic support of every disciple of Esculap in the country.

A young medical student was being quizzed by one of his teachers: "In what will you specialize?" he was asked. "Disease of the nostril," replied the student. "Good," said the professor, enthusiastically. "Which nostril?"

TOAD VENOM A POWERFUL HEART REMEDY. THE REDEMPTION OF BUFO AGUA,

One of the compensations coming to age is that one learns not to be too sure. Knowledge is always relative, never absolute. The last word on any subject has never yet been spoken. The thing we hold up for "laughter, fleers and jeers" today may be the pride of progressing tomorrow.

If there's ever been one single respectful word written on Chinese medicine, it has escaped me. The concatenation of all that's filthy and absurd; without a redeeming trait, with not one solitary little contribution to medical science! Why, the almond-eyed Celestial carefully gathers up dead toads, dries them, reduces their skin to a powder, and administers it as medicine! Toads!

But our own learned predecessors used powdered dried toads as medicines for dropsies, and even as late as 1833 they received mention in standard works on pharmacology. Then came the period of questioning skepticism, and the use of toads was dropped as too preposterous for consideration. Follows the period of investigation, and two Johns Hopkins men, having nothing better to while away time, undertook to ascertain what there was, anyhow, in that ridiculous old superstition.

So Doctors Abel and Macht secured a supply of bufo agua from Jamaica, milked the secretion from his salivary glands, and subjected it to scientific tests.

The first result was the discovery that, if instilled into the eye, this toad venom quickly causes extreme constriction of the blood-vessels, blanching the conjunctiva. This was found to be due mainly to an epinephrin-body, partly due to a digitalis-body. No effect followed when a small dose of the stuff was taken into the stomach, unless it came in contact with the mouth, when profuse salivation occurred. Injected subcutaneously or intravenously, the digitalis-principle is very toxic. When a large dose of the venom was injected, a tremendous rise of blood pressure was induced, followed immediately by a fall, due to sudden and complete stoppage of the heart. When a large dose in a capsule was swallowed by a dog, the stomach being empty, in ten minutes a clear bilious fluid was vomited, followed by retching and salivation for twenty minutes and manifest depression for an hour. This effect would have been caused by the epinephrin in the dose, if given alone. The crude venom is a powerful and rapid agglutinator for the red corpuscles of the rabbit.

Examination shows that the pressor principle, constituting about 5 percent of the venom, is identical with epinephrin, as derived from the suprarenals from higher animals, both chemically and therapeutically.

The efficacy of toad skin in dropsy is due to the digitalis principle, of which the venom contains about 35 percent. This may readily be isolated in the form of crystals and prisms. The effects resemble those of digitalis, but we are promised more definite details later.

The evidence presented shows that our benighted forerunners who gave dried toad for dropsies were correct in their observation, just as we who give the sulphocarbolates as intestinal antiseptics, cactin as a heart regulator, hyoscine in preference to scopolamine, and practice a thousand "unorthodox" things, because supported by clinical observers, are right, despite the inability of the professional high-brows, sometimes, to give scientific reasons for success.

It isn't the size of a man's roll but the size of a man's soul that counts.—Herbert Kaufman.

KOLIPINSKI, AND NICKEL IN MEDICINE

Kolipinski, who introduced the sulphate of chromium to the American Therapeutic Society, has called the attention of that association of conglomerated mossbacks to the sulphate of nickel. (*Monthly Cyclopedia*, June, '11.)

Nickel is not a poison as used in cooking utensils.

Experiments on animals show the nickel salts, in toxic doses, to cause motor paralysis (centric) with convulsions, tetanic cramps, lowered blood pressure, twitching, and finally death, the respiration stopping before the heart. In less acute cases, an affection develops resembling mercurialism, with stomatitis, diarrhea, the feces black and offensive. Some resemblance is seen to the action of cobalt, but the color of the urine is unchanged. It is difficult to cause death with nickel given by the stomach. Nickel is mainly excreted by the kidneys, some in the bile and feces. All its salts are antiseptic, especially the chloride.

To plants, nickel is more toxic than cobalt. Manoilow found the salts less destructive than copper to microorganisms. It inhibited the growth of bacillus coli communis, in the strength of 95 : 10,000; typhoid bacillus, bacillus pyocyaneus, staphylococcus, and cholera vibrio, 30 : 10,000; aspergillus, 46 : 10,000; saccharomyces, 89 : 10,000; bacillus prodigiosus and subtilis, 70 : 10,000.

Sir James Y. Simpson found nickel a gentle metallic tonic in doses of one grain after meals. He gave it for periodic headache, chlorosis and amenorrhea. J. D. Palmer found the action to resemble that of bromides, relieving facial neuralgia and inducing sleep. Relief was more prompt than from morphine.

Da Costa gave the sulphate and bromide in doses of 1 to 3 grains. Larger doses caused nausea and giddiness, relaxing the pulse and lowering temperature. It was anodyne, not hypnotic or tonic, and proved

useful in obstinate diarrheas. Of the bromide, five grains was an average; ten grains a full dose as to bromide action, relieving congestive headaches, convulsive states, epilepsy, etc.

Rosh Leaman found nickel bromide best for epilepsies with infrequent regular attacks, where a mild impression is to be maintained for a long time.

Kolipinski chose the sulphate as affording nickel effects rather than those of the acid element. The dose he fixes at one grain four times a day, in pill, tablet or solution. The latter, 1 : 1900, proved a potent germicide and antiseptic. In 1- to 2-percent solution it cured impetigo contagiosa, pityriasis versicolor, ringworm, and eczema marginatum.

The patches of alopecia areata showed new hair in a week. It is a good application for acne, giving the remedy internally also if the patient is a young anemic. It is also good internally for urticaria from overwork, with nocturnal outbreaks, for the irritation of erythema and for chronic psoriasis.

Chorea was cured by nickel within four weeks, the nutrition improving under the remedy without the unpleasantness of arsenic. Stammering improved after two months' treatment, the nutrition and morale showing benefit. Tic douloureux was eased by nickel. In all migraines, it proved one of

She complains of frequent micturition even now, with slight tenesmus following. The urine contains considerable albumin, and its sediment shows abundance of leukocytes, but no casts. The reaction is acid. No particular tenderness in the base of the bladder is discoverable on digital examintion of the vagina. The uterus is normally anteverted, of normal size and not very tender. To the left of the uterus and extending into Douglas' cul-de-sac behind it, bimanual examination reveals considerable tenderness and a thickened cord running from the side of the uterus and ending in a soft, fluctuating, rounded mass. On the right of the uterus there is some tenderness, but I have been unable to detect any thickening or mass. A blood count made today shows 12,000 leukocytes.

The indications for operating seem to be: continual attacks of more or less severe pain

His description of the effects of masturbation appears to have been copied from the advertisements of quacks. Despite his warm enconiums, we find no sufficient proof that nickel exerts any beneficial powers in itself. In diarrheas, it is like all other metals, somewhat astringent and antiseptic, but presenting no special advantages. In the diarrheas of the tuberculous—not necessarily or often tuberculous diarrheas—it does not approach in efficacy the copper salts. Most neuroses will show improvement after two or three months' care, even if nickel is not being given, provided the hygiene is judiciously regulated.

Nickel bromide is a good remedy, each grain equaling about 5 grains of potassium bromide. Apart from this, we are unable to see in the statement presented by Dr. Kolipinski anything to warrant a resort to the salts of nickel. In the sexual cases he dilates upon, there is no such radical and certain result from nickel as follows thymol-iodide applications to the prostatic urethra. In the neurotic conditions pertaining to celibacy, is there any reason in looking to a drug for relief, or for expecting any drug can beneficially aid in outraging nature? The remedy for celibacy and its train of ills is matrimony.

A PENALTY FOR EFFICIENCY

A blacksmith or a carpenter who is more skilful and efficient than others asks and receives a greater wage than is paid to his inferiors. A salesman who sells more goods than other salesmen is rewarded with an increased salary.

But the general practitioner whose knowledge and skill are so great that he cures his patients in half the time required by his less-gifted competitor gets only half as much remuneration as they receive. Often two visits suffice for him to overcome a condition that threatens to become serious, and he is paid for two visits only. Meanwhile friends and relatives see no cause for gratitude, for where the relief was so prompt they conclude there was "not much the matter."

But let a well-dressed incompetent take charge of such a case, and how different the tale. Day after day the visits, the discouraging headshakes and the dosing continues until, perhaps, after many days, the patient is well again, though awfully weak and thin. But the doctor, who "was so faithful and attentive," is hailed as a savior; and his bill, paid in installments, as it may be, is looked upon as a sacred, material acknowledgement of the kindness of Providence in providing such a good doctor in the emergency. It would be more equitable if doctors worked "by the job," instead of by the visit.—*Southern Medical Journal.*

Does it always work out in that way? Once in a while there may be a physician who is so much better skilled in the use of his tongue than he is in the tools of his profession that he is able to make the facility of the former repay him (not his patients) for the defects of the latter; still, in the majority of instances, I believe, reputations are won in medicine, as in trade or industry through *quality of service.*

Exactly the same specious reasoning is employed to excuse the plumber who makes the job that should take him but an hour to finish, last two, or the carpenter or bricklayer who defrauds his employer by stringing out his work to the limit of tolerance. People may be hoodwinked for a while, but when they "catch on," woe be to the hoodwinker! If there is anyone else available to fix their pipes, or build their barns, or cure their diseases, the man who has treated them dishonestly will be out of a job!

It is reasoning like that above which leads so many young physicians of weak wills and unestablished principles into the crooked path. They think that the one great motto of the business and professional world is, "Get the money!" The finger of admiration is too often pointed at the schemer, the half-crook, who has made himself wealthy by questionable methods. They do not know—because no one has shown them—of the thousands who have risked all, and lost all, by resorting to deceit, or lies, or worse, for the sake of making (?) more or getting more money.

What a serious, yes, what a damnable thing it is to trifle with human life! How can the physician excuse himself, morally, who neglects to adopt at once those measures which promise the most certain and the most speedy cure of disease? The unnecessary visits, the "discouraging head-shakes," the unneeded and improperly used medicines, that do harm instead of helping, are all an indictment of that man's character.

Of late years the business world has come to understand that the two most important considerations in business building, more important even than a fine presence and a persuasive tongue, are "quality of goods" and "excellence of service." They are just as essential in the professional world. The doctor's "goods" are his knowledge, not mere theoretical knowledge, but the knowing of anything and everything that can aid him to cure his patients, *cito, tuto et jucunde.* Instead of scheming how he can extract every possible dollar out of his victim, let the young doctor devote his time and his brains to exhausting the possibilities of curing every patient. The doctor's "service" consists not alone in the pills he administers or the bandages he applies; no, his service also lies in his way of applying the Golden Rule.

It is a pity that this insidious doctrine of giving little and getting much is being instilled into the minds of the rising generation. Perhaps it is a sign of the terrific stress from which our profession, like others, suffers at the present time. The time may come—as surely it should—when the new preventive medicine, advocated in these pages, shall become an actuality. When the physician's financial interest centers in the effort to keep people well, in that happy time the complaint that doctors prosper by keeping men sick will lose its force.

May such a day come soon! But meanwhile let us remember that all the success worth while is to be had by "quality of goods and excellence of service."

it inhibited the growth of bacillus coli communis, in the strength of 95 : 10,000; typhoid bacillus, bacillus pyocyaneus, staphylococcus, and cholera vibrio, 30 : 10,000; aspergillus, 46 : 10,000; saccharomyces, 89 : 10,000; bacillus prodigiosus and subtilis, 70 : 10,000.

Sir James Y. Simpson found nickel a gentle metallic tonic in doses of one grain after meals. He gave it for periodic headache, chlorosis and amenorrhea. J. D. Palmer found the action to resemble that of bromides, relieving facial neuralgia and inducing sleep. Relief was more prompt than from morphine.

Da Costa gave the sulphate and bromide in doses of 1 to 3 grains. Larger doses caused nausea and giddiness, relaxing the pulse and lowering temperature. It was anodyne, not hypnotic or tonic, and proved

Salpingo-Oophorectomy

A Clinical Report

By HENRY F. LEWIS, M. D., Chicago, Illinois
Professor of Gynecology, Bennett Medical College

Hysterectomy in a Girl of Fifteen

THE first patient upon whom I purpose to operate this afternoon is a girl of fifteen who has suffered from more or less pelvic symptoms since the birth of her child about a year ago. Before this she seems to have had gonorrhea, judging from the history of pain and burning at micturition, copious purulent discharge from the vulva, and subsequent pain and tenderness on both sides of the lower abdomen and pelvis. She has menstruated regularly for the last several months, but her pains are intensified at the menstrual periods. She complains of frequent micturition even now, with slight tenesmus following. The urine contains considerable albumin, and its sediment shows abundance of leukocytes, but no casts. The reaction is acid. No particular tenderness in the base of the bladder is discoverable on digital examintion of the vagina. The uterus is normally anteverted, of normal size and not very tender. To the left of the uterus and extending into Douglas' cul-de-sac behind it, bimanual examination reveals considerable tenderness and a thickened cord running from the side of the uterus and ending in a soft, fluctuating, rounded mass. On the right of the uterus there is some tenderness, but I have been unable to detect any thickening or mass. A blood count made today shows 12,000 leukocytes.

The indications for operating seem to be: continual attacks of more or less severe pain in the lower abdomen and in the back, from which she and her friends demand relief, as also the presence of what appears to be at least an enlarged left tube ending in a cystic enlargement of the ampullar end or of a cystic ovary.

Removal of a Cystic Ovary

I make an incision just above the pubes of about two and one-half inches in length and find the omentum lying directly underneath. Passing my two fingers into the abdomen behind the pubes, I come upon the fundus of the uterus and, passing behind that, I feel a soft mass as large as a hen's egg lying close to the uterus and partly to the left. From this rounded cystic body I can trace the left tube running to the uterus, considerably thickened distally and becoming normally narrow at the uterine extremity. The mass and the tube are adherent to the uterus to the left broad ligament, in one or two places to the sigmoid, and behind to the sacrum and rectum. These adhesions are not very dense or strong and I can separate them without great difficulty. In this case the fingers can be gradually inserted between the uterus and the tumor-mass, and, by carefully working through the line of cleavage, I can gradually shell out the left tube and ovary from the bed of adhesions and bring it into view outside the incision.

As you see, there are two places where the tube is adherent to an epiploic appendage of the sigmoid but where it can easily be

freed therefrom. The cystic mass appears to be the left ovary, about as large as a small egg and exhibiting upon its surface many places where adhesions have been separated. The enlarged fimbriated extremity of the tube also shows these marks of adhesions. The uterine third of the tube appears to be healthy and there is no need of removing that portion.

We pass an eight-inch forceps over the broad ligament, just a little below the tube from the outside inward to within about one inch of the uterus. Now we pass a suture of catgut just beyond the end of the forceps and tie it. Now we take the scissors and cut away the broad ligament just above the forceps and cut off the tube just above our ligature. The cystic and possibly purulent ampulla of the tube is now removed. Next we whip the needle of our suture around the forceps from the point toward the heel, making several stitches over and over, including the broad ligament and the forceps. When we reach the end of the broad ligament toward the wall of the pelvis, we have the forceps loosened and removed through the loops of our running suture and immediately pull these tight, thus leaving a suture over the upper margin of our severed broad ligament. The suture is tied at the outer end.

Passing the sharp point of the scissors into the opening at the end of our tubal stump, I will slit the tube about half an inch, in the hope of leaving an artificial ostium. With the sharp end of the scissors I open the cyst of the ovary, evacuate its contents, wipe away with gauze the velvety wall, resect the cystic portion and suture the rest.

On the right side there is to be felt only a tube and ovary of apparently normal size but more or less adherent to the broad ligament and the uterus. After separating these adhesions with the fingers, we will bring the tube and ovary into the incision. Since, barring the marks of the adhesions, both look normal, there is no reason for doing anything more with them and we will close the abdomen, after first looking carefully over our interabdominal wounds, to see whether there is any bleeding. Our method of closure of the abdominal incision is by catgut running suture for the peritoneum, catgut locked running suture for the fascia, and the Michel metal clips for the skin.

Pyosalpinx Due to Gonorrheal Infection, in a Colored Girl

The next patient is a colored girl of eighteen who had a baby and presumably a gonorrheal infection about two years ago. The child died in the early weeks from convulsions. The patient has had a leucorrheal discharge for several years. Since the child was born the patient has suffered from much pain in the back and in the lower part of the abdomen, aggravated at menstruation, and has had for the past six months obstinate constipation, only relieved at intervals by large doses of cathartics.

Bimanual examination shows a bilateral laceration of the cervix of moderate degree, a uterus strongly retroverted and bound down to the posterior part of the pelvis. Closely attached to the uterus and not easily differentiated from it is a mass as large as a fist occupying the whole of the cul-de-sac and extending to each side of the uterus. The whole mass seems almost like one body with the uterus and is very tender on examination.

We will essay a diagnosis of probable double pyosalpinx with probable involvement of one or both ovaries. The uterus is evidently retroverted and held in its false position by adhesions. The pressure of the mass and of the retroverted uterus upon the rectum probably accounts for the constipation. In the acuter stages of pyosalpinx there is often great pain on defecation from pressure of feces upon the inflamed tissues of the tube.

Technic of Removal of Ovary and Tube

After making an incision like that in the preceding case, I find that the uterus and the mass behind and on each side of it are all snugly bound together and to the posterior wall of the pelvis by adhesions. These I gradually and carefully separate, working down behind the uterus and between it and the tumor mass and finally shelling out from this bed the appendages of the left side.

As you see, as this mass is brought up into view, the tube is thickened and distended

to three times its normal diameters and is thickened even to the uterine extremity. The left ovary, except for the marks of adhesions, appears normal and therefore can safely and properly be left behind. Again we pass a forceps, clamping the broad ligament under the tube, and this time as far as the uterus, and tighten it upon the broad ligament. After cutting the uterine end of the tube away by a wedge-shaped incision into the uterine wall and sewing up the uterine wound, we cut away the whole tube from above the forceps with scissors, and suture the broad ligament over the forceps as in the former instance.

Turning our attention to the right side, we find that there is a rounded cystic mass there which, as we finally enucleate it and bring it up into the wound, proves to be the right ovary enlarged to the size of an egg by a cyst. The tube of this side appears normal and the passage of a probe into its fimbriated end shows it to be permeable. We will therefore resect the cystic portion of this ovary.

Next we must do something to prevent the uterus, which you can see now can easily be replaced into its normal position of anteflexion, from falling back into the denuded cavity where the tubes and ovaries formerly lay. The best thing for that purpose in this case is shortening of the round ligaments, with the intention of holding the uterus in the proper position long enough for the raw surfaces to heal over, for the sacro-uterine and round ligaments to recover their normal tone, and for the other supporting structures of the uterus in the pelvic floor and the anterior vaginal wall to resume their normal characters. After that the uterus will remain in its normal position just as it did before it became imbedded in the mass of inflammatory adhesions in which we found it.

Shortening the Round Ligaments

The method of shortening which I have found the most satisfactory to myself is the simple one of folding the round ligaments upward and suturing them to the uterus just below the origin of the ligaments.

First holding the wound toward the left by the deep retractor, we grasp the left round ligament about an inch downward from its uterine origin with an artery-forceps and pull this loop up to the uterus. The proper length of the round ligament will be determined in each case by trial. Holding the loop at the insertion of the round ligament into the uterus, it is fastened there by two catgut sutures; and then the process is repeated on the other side. It is very quickly done and is very simple. It surely does what we want of it. You now can see the uterus held in its proper position by the shortened round ligaments, and we will close up the abdomen as in the other case.

Shortening of the round ligaments is a far preferable operation to ventrosuspension or ventrofixation, because the uterus is not left tightly bound in an abnormal position where it may undergo much tribulation in a possible future pregnancy, or where its abnormal situation may cause it to press upon the bladder or draw upon that organ in a way inclined to produce many aggravating symptoms of bladder irritation or worse.

When to Operate

The time to operate in cases of this kind is determined largely by the acuteness of the symptoms. It is dangerous to operate in the stage of acute gonorrheal or streptococcic infection of the tubes and pelvic peritoneum. The patient at this time will exhibit symptoms of great pain and tenderness in the whole pelvis and lower abdomen, will have fever (often quite high), will be physically and mentally much depressed and, in short, will be acutely ill and a poor subject for any operation which is not demanded to save life.

Severe as these symptoms of acute salpingitis and pelvic peritonitis are, they almost always improve under palliative treatment, while very likely to prove fatal under laparotomy. At this time the operation will open up large areas for lymphatic, venous and peritoneal absorption of toxins. This is the time to treat such a patient by absolute rest in bed, very restricted diet, laxatives, colonic flushings, antifebrile medication, hot fomentations to the lower abdomen, and such palliative measures, combined if absolutely necessary with opiates. In a few days, as the symptoms, especially

the acuteness of the pain and tenderness, subside, copious vaginal douches of hot sterile water several times a day will be beneficial. The patient usually will recover in a few weeks enough to get up and go about again.

As soon as the pain and tenderness will permit a bimanual examination, it will usually be found that there remains a more or less tender mass behind and to one or both sides of the uterus and usually adherent to that organ. This mass will become less tender and will decrease in extent under hot douches, tampons, laxatives, etc., but will seldom disappear entirely. In many cases there will never be any return of the acute symptoms. In a goodly number of the cases the inflammatory products, instead of absorbing, will collect into one or more abscesses behind or at the side of the uterus and filling up the pouch of Douglas. In some cases it will be necessary to open such abscesses through the vault of the vagina to evacuate the pus.

In all cases there will be some pathologic products left in the tubes, ovaries or pelvis, and these lesions may, and often do, light up again with acute inflammatory symptoms. Therefore, when any marked symptoms persist, it is indicated to operate by the abdominal route. This should be done in time of comparative peace and after the subsidence of the fever. The leukocytosis in most instances persists and is itself one of the indications for operation. It shows that the patient is reacting.

We do not now consider it necessary to wait a year or several months after the subsidence of the acute symptoms before removing the diseased organs, but can usually safely interfere surgically a week or two after the fever has gone. By that time the patient's tissues have become more or less immune to the infectious microbes present and the microbes themselves have largely lost their virulence. Especially are we compelled to operate upon those patients who, by reason of poverty, indolence, distance from competent professional services or other reasons, cannot undertake thorough and persistent local and home treatment for their pelvic disorders.

The Question Of Abortion*

Considered in Its Ethical and Social Aspects

By WILLIAM J. ROBINSON, M. D., New York City

EDITORIAL NOTE.—This paper is really a continuation of the author's paper on "The Limitation of Offspring," which has already appeared in these pages. Every physician who has followed the doctor's argument thus far will desire to read carefully (and he must read thoughtfully, whether he agrees or not) this final paper.

MAX NORDAU, the clever author of "The Conventional Lies of Our Civilization" and of several other clever things, has recently coined a clever word. The word is "acrochronism," and it refers to the belief which is shared by the majority of people, that the period they live in is the best of all periods, superior to any period that has preceded it.

And right here let me say that I believe, in spite of the fact that humanity is not advancing in a straight line, but in zigzag; in spite of the fact that occasionally we take a decided step backward; in spite of the fact that some periods are poorer in great men, in philosophers, in writers, than some preceding periods, I believe, I say, that, with the exception of the dark middle ages, which for a thousand years hung like a pall over the world, acrochronism is justifiable, and I am willing to be classed among the acrochronists. For we *are* making progress, and if we make up the balance sheet at the end of every ten or twenty-five years, we shall find the sum total decidedly in our favor.

*Read before The American Society of Medical Sociology, at The New York Academy of Medicine, May 12, 1911.

We have not yet solved all the questions in philosophy, in morals, in religion, in economics that confront us. Regarding some of the questions, we are no nearer solution than we were a century ago; but one point we have reached: we are no longer *afraid* to discuss *any* question. There are no sacred subjects any more the mere discussion of which is considered a crime. We have passed the childish stage in which we were told that certain questions must not be touched, that it was a sin to think of certain things or to try to analyze them, to find out the why and wherefore. We recognize no barrier to any discussion. We recognize no closed doors which we must not attempt to open with the key of critical analysis. In short, in the arena of discussion we recognize no forbidden ground. We recognize but one danger—the danger of silence, the danger of repression. No matter how wrongly a question may be discussed, it is by far better to consider it openly, even if erroneously, than not to discuss it at all. If we discuss a question wrongly, someone is sure to point out our error, but if for fear of appearing unconventional, of being criticized by Mrs. Grundy, we hide our opinions, smother our convictions, how can we ever arrive at the truth?

Why Not Discuss the Abortion Problem Philosophically?

The question of abortion is of great interest from a philosophic, biologic, moral, and social standpoint. Unfortunately it has always been surrounded with so much bigotry, so much hypocritical cant, that the issue has been entirely obscured.

There is no reason why this question could not be discussed calmly, judicially, without bias and without fear. This I will attempt to do tonight.

And I can do this the more readily, because, strange as this statement may sound to you, I personally have never produced an abortion. Yes, it is eighteen years today since I received my M. D. degree, and during that time I have not committed one single abortion. I know this sounds strange in a large audience of physicians, but it is so.

But, pray, do not for one moment imagine that it was on moral grounds that I refused the hundreds of pleading, weeping heart-broken, distracted women, married and unmarried, who begged and entreated to be freed of the fruit of their womb. No, I repeat, it was not moral superiority; it was pure cowardice, principally. I may have contempt for a law, but I prefer to obey it as a matter of wisdom—as a matter of egotism, if you will. I have always felt that I have something important to do in this world; I felt that I had a message for humanity, and I therefore thought it best not to endanger my peace of mind and not to run the risk of getting into the clutches of the law. Yet there is no particular merit in such an attitude. It is a policy of wisdom, but it has nothing to do, I wish to emphasize, with high moral courage.

Another reason for my keeping shy of abortions is that it is hard to shake off the feelings for prejudices engendered by early training; and I have always had a personal dislike for the abortion business; and I have always been taught as a youth to despise the abortionist. And the professional abortionist, it must be confessed, is not a high-class individual. True, he may prove, and often does prove, a great benefactor, but the fact must be borne in mind that the professional abortionist is not in the business for altruistic purposes; he does not do the work out of pity's sake, as physicians sometimes do; he does it only for the money. If you don't believe it, ask a professional abortionist to bring on an abortion on a poor girl, without charge.

So you see what my personal views are. But I have always had deep contempt for the hypocrite, and likewise great pity for the muddle-minds who would get up in a medical society and brand the commission of an abortion as a crime exactly equivalent to that of murder, and would, with eyes raised to heaven, stigmatize the one guilty of an abortion, whether it be the aborter or abortee, as a murderer.

Gentlemen, if every physician who even once in his career—under the stress of tragic circumstances, in order to save the life and reputation of a young girl and the

happiness of her parents—performed an abortion, is a murderer, then seventy-five percent, nay, probably ninety percent of the medical profession are murderers. And if every woman who had an abortion performed on her is a murderess, then millions of our child-bearing women are murderesses. And I tell you that some of them are beautiful murderesses, sweet, gentle, kind, attached to their husbands and children, devoted to charitable work, and altogether lovable. A peculiar kind of murderess.

Should any of my utterances appear to you too radical, should any of my friends think that some of the things I say might better be left unsaid, then I can only reply, paraphrasing slightly the young genius, the lamented author of "The Martyrdom of Man": In the matter of speaking or writing I listen to no remonstrance, I acknowledge no advice, no decision save that of the monitor within me. My conscience is my adviser, my audience, and my judge. It bids me write and speak as I write and speak, without evasion, without disguise; it bids me go on as I have begun, whatever the result may be. If my opinions should be condemned, without a single exception, by every one in the audience here, it will not make me regret having expressed them, and it will not prevent me from expressing them again.

One Million Abortions Each Year

That the question of abortion is of tremendous importance will be acknowledged by everybody who has given the subject any consideration.

The number of abortions performed annually in this country is so appallingly large that the uninitiated cannot be blamed for being somewhat skeptical when the figures are mentioned. I have gone on record with the statement that about a million abortions are brought about every year in the United States. Exact statistics are not and never will be available; but I am sure that my estimate is a very conservative one, and that three millions would be nearer the truth. Justice John Proctor Clark stated that one hundred thousand abortions are performed annually in New York City alone, and if these figures be correct, then the number for the United States would be in the neighborhood of two and a half millions.

Can you form any conception in your minds as to what this means, in shame, in humiliation, in anguish, in economic loss, in time and money, in chronic invalidism, in permanent sterility, and in premature graves? No, I fear you can not. And the worst of it is, that abortion and the demands for abortion are not diminishing but increasing from year to year, as can be testified to by all general practitioners. And as far as the immediate future is concerned, the evil is sure to keep on the increase.

The reason for this is a two-fold one: First, married women are beginning to rebel against an unlimited number of children, they are beginning to refuse to be drudges, good for nothing except breeding and nursing; they are beginning to feel the tremendous responsibility of bringing children into the world for whom they cannot provide, and having failed, on account of ignorance, in preventing pregnancy, they will try to interrupt it. No physician in this room will deny that the demand from married women for bringing on abortions is becoming greater from year to year.

Modernized Woman's Abhorrent Views On Chastity

The second reason is that our unmarried women are beginning to look at sexual relations from a different point of view. Of course I do not speak of all women, but I speak of a large, constantly growing number of educated, thinking, independent women.

These women—it is shocking, but it is true—do not regard chastity as the greatest treasure of woman, or the greatest honor of woman. They are not like the ancient Roman or Jewish women, who were always ready to give up their lives for their honor. No. Many of our women of today regard chastity as but an empty virtue, a hollow shell. They have been taught the injustice of a double standard of morality. If a woman can remain chaste until marriage they have been told, so can a man. But as they saw that men do not remain chaste, they decided that they themselves need

not do so either. In other words, they turned the proverb around and declared that what was sauce for the gander was also sauce for the goose.

And there is no use denying that there is a constantly growing number of unmarried women who indulge in sexual intercourse habitually, without considering it any more wrong than do men. And, of course, when these self-same women get into trouble, they will demand relief. And you cannot blame them. As long as illegitimate pregnancy is considered the blackest of crimes, as long as maternity unhallowed by priest or magistrate is considered the deepest and most shameful sin of which woman is capable, so long you can not blame the unmarried woman for wanting and demanding to get rid of the fruit of her passion, of the evidence of her "sin."

These women are not low and debauched, as our puritans and theologians would have us believe. They would prefer to get married, to live like true, faithful wives, for unlike men, who by nature are polygamous, women are by nature monandrous. But on account of social-economic conditions, marriage is all the time becoming a harder and harder proposition; it is becoming more and more difficult to make a career, and therefore the age at which men get married is getting further and further advanced; many never arrive, while others, when they are ready financially, find themselves so old that they decide to end their lives in single blessedness. Many old bachelors means many old maids. The old bachelors have no difficulty in satisfying their sexual needs.

What should the old maids or the relatively young but prospective old maids do? Remain old maids, crabbed, soured old maids to their last day? Well, thousands and thousands are doing it. Thousands and thousands of women are ruining their health, destroying their beauty, stifling their desires, renouncing the greatest joy and pleasure of life, the companionship and embraces of the opposite sex, are bringing all these sacrifices for the sake of a principle which is very dear and very real to them, though others consider it but an empty bauble. But those women who have thrown off the restraint of religion and are not hampered in their acts, by what is to them a fictitious morality, are not willing to sacrifice their lives to a myth, to a symbol, and with these women, unless, as I said before, they acquire the knowledge of the prevention of conception, the medical profession will have to count.

What Is the Remedy?

Some of our esteemed friends have an infallible remedy for all this world's ills.

Teach the people morals or religion (which terms to them are, by the way, synonymous), they tell us, and all will be well. "Teach the people that abortion is a crime equivalent to murder, that the mother who has an abortion performed on her is a common murderess. Excoriate the abortionist in the press and in the pulpit—and the evil will disappear."

How naive, how childish, or shall we use a stronger word and say, how stupid? Here they have been teaching, preaching, cursing and excoriating for two thousand years; yet the evil, instead of diminishing, is increasing. And still they have not the perspicacity to see that the remedy they propose is an ineffective one.

The same thing with the prevention of venereal disease. We all know the terrible ravages of venereal disease. We see the incalculable damage it is doing to the individual, to the family, to posterity. But when it comes to remedies we differ. Our conservative friends who have not succeeded in freeing themselves from the thraldom of custom, tradition and superstition have but one remedy to offer: Preach morality, preach chastity, frighten the people with the spectre of syphilis and gonorrhea. That this preaching and frightening process has been going on for two thousand years without any effect whatever seems to have no influence on them. They keep on repeating the same vapid, though undoubtedly in most instances sincere, platitudes, year in and year out.

We radical thinkers, who are not afraid to look at every question from a broad philosophical viewpoint, who combine with our idealism and hope for the future a

desire for practical results in the present, have seen the inefficiency of moralistic preaching, and have decided that if we wish to diminish venereal disease under our present social conditions, the only thing to do is to show the people how to use real preventive measures. And where preaching and cursing have proved worthless, protargol and calomel have shown themselves marvelously effective. Our Government puts these remedies into the hands of our soldiers and sailors, and everywhere there is a marked diminution in the incidence of gonorrhea and syphilis. And we cannot see why the means that are used with such good effect by the army and navy, by the student bodies of Germany and France, cannot be put into the hands of the general public with similarly good results.

To return to the abortion question, which presents a similar aspect. Recognizing abortion as an evil, and recognizing that the most thunderous anathemas of the church, the most horrible threats of eternal punishment have failed to do any perceptible good, we turned to more practical, more efficient measures.

There is one measure, and one only, which will quickly and positively do away with the evil of abortion, and that is, teaching the people how to prevent conception. This is but one of the evils which the knowledge of the prevention of conception will do away with, but it is an important evil. Of course our socalled moralists and thinkers who belong to the kindergarten class object to this—but this we cannot help. We shall have to accept their opprobrious epithets, face their displeasure, and go on with our work. And our motto will remain: No undesirable pregnancies, no forced childbearing, no children brought into the world as accidents.

Is Abortion Ever Justifiable, Except To Save the Mother?

We now come to the other part of the paper: Is abortion ever justifiable? Particularly, is abortion ever justifiable when the mother's health is not threatened?

There is a religion which considers abortion unjustifiable, under any and all circumstances; even when the mother's life is at stake; even when the mother is sure to lose her life, unless abortion be induced. These views are to us so medieval so inhuman, that we cannot discuss them. We can only condemn them as unworthy of an enlightened humanity. The more liberal religions and the vast majority of the public in general recognize that abortion is justifiable whenever the mother's *life* is threatened, and our textbooks on obstetrics give a number of indications where the physician is justified in inducing abortion. Such are: uncontrollable, pernicious vomiting of pregnancy, severe albuminuria, tendency to eclampsia, puerperal insanity in previous labors, deformed pelves, certain cases of heart disease, tuberculosis, and a few other conditions.

Let us now see whether abortion is ever justified when the mother's health or life is not at all threatened. To make an argument carry conviction, to make it strike the nail on the head, it is a good thing, at least it is often necessary, to take a striking illustration. Let us take the following example.

Pregnancies the Result of Rape and Incest

A beautiful girl, of a fine family, barely 16 (and, by the way, this is an actual and not a hypothetical case), is assaulted and raped by a brutal negro. To the indescribable horror of the girl and of the parents, her menses fail to appear at the expected time, and the horrible fear of pregnancy becomes a certainty, corroborated by a physician, in another month. The girl's health, however, strange to say, has not suffered in the least. Nature, as you know, does not know the words licit and illicit.

Now I am asking you this clearcut, unequivocal question, to which I would like to have a clearcut, unequivocal answer: Is abortion permissible in that girl's case? If you answer unequivocally, without beating about the bush, without any hesitation, as one catholic priest did, "No!" then I am satisfied. I simply stop all further discussion, because I can see that we live in different centuries, different blood courses in our veins, different feelings dwell in our hearts, radically different thoughts are produced by our cerebral cells.

You would no more understand me than a Hottentot would understand Shelley's poems, or a blind man appreciate Murillo's Madonna, or a deaf man be thrilled by Beethoven's symphony. But if you say, as I imagine most of you will, "Yes, in the above case abortion is justifiable," or, perhaps, "not only justifiable but imperative," then we can proceed further.

Yes, the thought is revolting to have that beautiful refined girl bear within her womb for nine months and then give birth to a child the father of whom is a brute. It is perfectly brutal and outrageous to have a girl become an unwilling mother under the circumstances. Yes, I agree with you that producing an abortion in the above case is perfectly justifiable. Nay, I am willing to go even further with you and agree that not to produce one would be a crime against the girl and against humanity.

Let us now go a step further. Let us assume a case (and this case is also an actual and not a hypothetical one; in fact, all the examples I am citing here are actual cases from life) in which the assaulter was a white brute, not a colored one. Should the girl be compelled to bear and become the mother of the child of a man whom she detests and loathes? And what love will she be able to give the child when it is born? And what future will the child have? No, for even though the rapist may be a white man, abortion is justifiable.

Now let us take a different case. I know of several cases of incest, where brothers were living with their sisters. I know of two cases where the sisters became pregnant. In one instance an abortion was produced; the other was permitted to go to term, and the child is now in a foundling asylum. In which case do you think was the proper course pursued? In the first one, of course; and it is a damnable shame that abortion was not produced in the second one. The girl-mother's life is blasted forever, for she has the spectre of the child in the foundling asylum before her eyes all the time; she will, of course, not be able to get married; in short, she will have to drag out a miserable existence to the end of her days. And how about the child? If it ever grows up, it is sure to be miserable, unhappy, living under constant insults and humiliation, and cursing his fate and the day he was born.

Victims of Seduction or of Passion

We now come to the ordinary run of cases that infest the offices of physicians and the abortionists. Cases of girls who became pregnant under the promise of marriage or who lost their reason in a moment of uncontrollable passion.

Here is the probelm: What should you do with those girls who come to you with their frightened eyes swollen from sleepless nights and worry and red from weeping, with anguish engraved in every feature of their face; who trembling tell you their heart-breaking tales; who plead with you that it would kill their mother (and it sometimes does kill the mother, and the father too); who swear to you that unless you help them out they will throw themselves into the river or under an elevated or subway train, or they will take a dose of carbolic acid? (And quite often, more often than you think, they fulfil their threat.) What should we do with those unfortunate girls, whose tears are salty enough to eat through a heart of stone, and with whom not to feel any sympathy it would be impossible, except for a man utterly devoid of any human feeling? What should we do with them? Should we, concealing our sympathy for them, politely but firmly show them the door, as I, for reasons of which I am not particularly proud, have always done, or should we help them out of their misery?

Let us see what becomes of the girls whom we, the respectable doctors, put out of our offices. Some of them get into the hands of the professional medical abortionist—they are the luckiest. For, as a rule, the doctor who makes abortion his business, nefarious as it may be, does his work carefully and aseptically.

Another portion gets into the hands of the midwives and other ignorant abortionists, male and female. Here the poor girls sometimes come out all right, sometimes they pay with their lives, sometimes they become invalids for life. In another portion the girl goes to some home or

maternity hospital, stays until the child is born, which is then given to some foundling asylum or farmed out to some poor woman, the mother paying for its board. What becomes of the child, you can imagine. How the mother feels with the knowledge of her hated or loved (which latter is still worse) child in the asylum, I also leave you to imagine.

And still another portion of these girls, ignorant of how or unable to find anyone to help them go through the tortures and humiliations of an illegitimate pregnancy and childbirth, has recourse to one of the means mentioned before: the river, the noose, the train, or carbolic acid; sometimes it is paris-green or corrosive sublimate or the heads of matches soaked in water.

The Story of Little Beatrice

Well do I remember little Beatrice. She was twenty, but she hardly looked it. She got into trouble and she came to me. I knew her. She knew me and knew I was kind, and she hoped that I would help her out of her misery. Wasn't I kind and good? But she did not know how cruel the kind can sometimes be, how selfish the good often are. When I as gently as I could, but none the less positively, refused her, I saw that had I hit her on the head with a sledge-hammer I could not have hurt her more. She looked stunned. She did not say much. She did not make any threats of suicide, she gave me one reproachful look with her tear-filled eyes and left. And next morning they carried her mangled little body from under the elevated train into the hospital. She gave my name, and wanted to see me. It was hard for me to go and see her, but I could not refuse her dying wish, and came. She had sustained severe internal injuries, and one could see that she had but a few hours to live. But she was fully conscious. She asked me to hold her hand. And then she said, "Forgive me. Good-by." And I went. But were I to live a hundred years more, I should not forget her liquid, veiled eyes. I see them now, just as if she stood before me.

I could relate many, many sad heart-breaking cases of disgrace, financial ruin, and premature death of entire families, brought about by the misstep of a young daughter, which nobody would relieve—but the paper is getting too long, and, besides, you probably are all familiar with such cases.

The Better Way

What is the upshot of all this? What is the underlying principle of this paper? Do I advocate abortion? No. Not a bit of it. And I do trust that none of you will go away with that wrong impression or will attempt to misrepresent me and make me say things which I did not say.

Abortion is a disagreeable business, a nefarious business, if you wish; at least it is to me, though I may be suffering from ancient prejudices which I cannot shake off. And it is an unhealthy, unhygienic, even dangerous business. There is always a slight element of risk connected with it. It may give rise to pathologic conditions, many women become chronic invalids, and it may cost the poor girl or woman her life.

No, I do not advocate abortion. But I do most emphatically advocate something which will render abortions unnecessary. I advocate legalizing the teaching of the people how to prevent conception. I advocate that this knowledge be made common property; it will then obviate the necessity for abortions, as it will obviate hundreds, and hundreds, and hundreds of other evils—as I have demonstrated, I believe conclusively, in my paper, "The Limitation of Offspring: The Most Important Immediate Step for the Betterment of the Human Race, from an Economic and Eugenic Standpoint," read on March 4, before the American Society of Medical Sociology.

Once more I repeat: I do not advocate abortion—I advocate the prevention of conception. But as, when you are called to a case of typhoid fever, it is hollow mockery to tell the patient that he should have taken care of himself and prevented the attack, so when little Beatrice, or Fanny, or Jennie comes to you and tells you that her periods have not come around, that she is two weeks overdue, it is too late to add salt to her wound and tell her that

she should have looked out. And in cases where a life, a reputation, the happiness of several people are at stake, we are justified, I believe in sanctioning the induction of abortion. On the one hand we have a mass of unformed or not fully formed, nonsentient matter, which is only potentially a human being; on the other hand we have a living, palpitating human being, we have several other human beings, who can all suffer, the parents and the brothers and the sisters, we have shame, disgrace, social ostracism, and perhaps death of one or more persons. Which shall we choose?

If it is still difficult for you to arrive at a conclusion, let me ask you this question: Suppose a young woman comes to you and tells you that unless you relieve her of her trouble she will on leaving your office commit suicide. Suppose you know the young woman, know her high-strung character, know her high-mindedness and truthfulness, and know that she never utters empty words; that whenever she says something she means it. Suppose you are absolutely convinced in your mind that she will carry out her threat and that within twenty-four hours she will not be among the living. What then? Are you then morally justified in inducing an abortion? If not—that is, if you answer no—then let us go further.

Why do you say that, if that woman suffers from uncontrollable vomiting or develops eclampsia, you are justified in producing an abortion? You say that her life is in danger, and you are justified in trying to save it. Isn't in the former instance the woman's life in still greater danger? I may be mistaken, but it seems to me that our ideas on the subject are rather coarse and muddled up and need a thorough overhauling.

If it is a purely physical condition that threatens the patient's health or life, such as vomiting, eclampsia, a contracted pelvis, a fibroid tumor of the uterus, rapidly developing Bright's disease or consumption, then we are justified in interfering; but if it is an indescribably horrible mental anguish, if it is the fear of shame and disgrace that we know will positively hurl the woman into the jaws of death, then we must not interfere. We must sit with our arms folded and show the dying victim the door. I may be wrong, but it does not seem right to me.

People must be taught to perceive that there are conditions of mental anguish which are a million times worse than any physical ailment or disability can be. Worse than death itself.

I feel very deeply on the subject, for I have passed many sleepless nights in self-accusations—not for having performed abortions, but for not having performed them. I am not very successful as a sophist and I could not avoid the conclusion that I was almost as guilty of the death of little Beatrice as if I had pushed her under the wheels of the locomotive.

Summary and Points of Emphasis

Permit me now to make a brief summary of what I have said, emphasizing a few points:

1. Abortion is an unpleasant business ethically, has always a slight element of risk in it, and, if improperly performed, often leaves the woman an invalid.

2. The best way, the only proper way, of dealing with abortion is to obviate the necessity for it.

3. The best way, the only proper way, of obviating the necessity for abortion is to teach the people the proper means of preventing conception.

4. To be able to teach the people the proper means of preventing conception, it is necessary to change the brutal and stupid law making the imparting of such information a crime punishable by five years' prison and five thousand dollars fine.

5. To call a physician who under certain special circumstances found himself obliged to induce an abortion a murderer, to call every woman who underwent an abortion a murderess, is silly and hypocritical; and those that apply these terms generally know that it is so.

6. I should like to see the term criminal abortion applied with more discrimination than it is now. I know that the induction of abortion is legally a crime, but that does not mean that it is always morally a crime.

Just as there are many actions which are not at all punishable by law, but are nevertheless the blackest of crimes from a moral point of view.

7. As long as our social system remains as it is at present, as long as marriage remains an unattainable ideal for many women, as long as the vast majority of people remain ignorant of any means of preventing conception, as long as illegitimate pregnancy is a matter of the greatest shame, as long as illegitimate motherhood is the greatest disgrace for the mother and illegitimate childhood the direst calamity for the child, so long will there be a tremendous demand for abortions, and so long will the demand be satisfied. If not by those in the profession, it will be satisfied by those out of it—and satisfied in a bungled, sometimes dangerous manner.

8. We can hardly escape the conclusion that under the conditions enumerated in the preceding paragraph the induction of abortion is often morally justifiable, and sometimes morally imperative.

9. It is a very serious question with me whether the physician who under certain circumstances induces an abortion is not morally a better man than he who closes his ears, his eyes and his heart to the tearful pleadings of these most unfortunate victims of our false social system and false morality, and tells them either gently or roughly to get out of his office, and not to dare to insult him with the dastardly proposal to commit a crime.

10. Under the conditions enumerated in paragraph 7, the abortionist is a necessary evil. And while I heartily approve of the activity of our medical societies in prosecuting unlicensed practitioners and quacks, I have no sympathy with the work of spying upon and hunting down and prosecuting the abortionists. Our societies could have their time employed to better advantage. I may find very few people to agree with me on this point, but it is my opinion, and I must express it, for I have promised myself either not to speak at all, or when I do speak, to speak the truth as I see it, and the whole truth.

11. For certain purposes in the discussion of the question, it is well to bear in mind that he who cries out most loudly against the nefarious crime of abortion in public is occasionally quite an industrious abortionist within the four walls of his office.

12. The last word has not yet been spoken on the subject. I do not claim it has. But whatever the opinions may be, it is time that the question of the justifiability of abortion under certain nonpathologic conditions be freed from cant and hypocrisy, hysteria, theologic and traditional bias, and be discussed in a calm, judicial, scientific, and above all, humane spirit.

Calcium Sulphide in Scarlatina

By GEORGE L. SERVOSS, M. D., Fallon, Nevada

DURING an epidemic, extending over several months, during which many cases under observation developed complications, myself and one of my confrères administered calcium sulphide and watched very carefully the conduct of the cases during and after such course of medication.

We found that when the sulphide was pushed to the limit and until there was a marked odor of sulphureted hydrogen in all of the excretions, the severity of the disease was much lessened. In none of the patients so treated did there appear any kidney complication. The initial sore throat disappeared at a very early date, and in several cases partial desquamation was established, even when the rash was making its appearance on other portions of the body. It has also been noticeable that desquamation has been established much earlier than when the calcium sulphide has been omitted.

It has further been noticed that, after full saturation with calcium sulphide, the patient apparently has been well, in so far

as symptoms other than the rash have been concerned. Not only have the subjective symptoms been lessened, but the objective as well. In one case coming under our observation, very recently, we found that, as soon as saturation was secured, the temperature dropped rapidly and the patient became very hard to handle, in that she said she was not at all sick and wanted to be outside playing with her brother. Prior to the use of the sulphide in this case, there had been some nausea, but this disappeared with the establishment of the effect of the drug.

Following the suggestion that full saturation of others than the person directly infected with the malady would serve as a prophylactic measure, we gave the remedy to full effect to the healthy ones also, and while some cases of the malady developed among those closely associated with the patient, we found that the severity of the attack was very considerably lessened, and that, in a few instances, the disease did not appear in those so treated.

It is not to be assumed that calcium sulphide was the only drug employed in any of the cases noted. In every instance attention was given to the toilet of the alimentary canal, and when there was pyrexia, the indicated remedies were employed; nevertheless, we believe that calcium sulphide, in addition to indicated medication, exerted a very favorable action.

Every patient so treated showed an earlier convalescence than did those receiving the ordinary indicated medication, and instead of desquamation of a secondary nature continuing, it was noticeable that the peeling discontinued after the primary desquamation and that the skin was left clean and normal in every respect. Aside from the slight occurrence of transient albuminuria during the height of the fever, in all cases in which calcium sulphide was pushed to the limit, there was no secondary nephritis. Nor, in any of the patients so treated, was there any ear or glandular involvement although both were in a measure common to other cases in which the sulphide had been omitted.

We found that it was necessary to push the drug to full effect, to obtain satisfactory results. In the beginning, the initial dose was 1-6 grain at hourly intervals, which was effective to a certain extent. Recognizing that we were obtaining some results in this manner, the interval was increased to every half hour. This was still more satisfactory, but after some experimenting we found that the initial dose of 1-3 grain every half hour to saturation and then 1-6 grain at hourly intervals produced the best results. It gave us a quick saturation and one easily maintained by the smaller dose at longer intervals.

Our observations have led us to believe that calcium sulphide exercises an inhibitory influence over the causative factor of the disease, even though it may, possibly, not not act as a direct germicide. It is indicated in every case of scarlatina.

The Trend Of Modern Obstetrics*

By A. B. LEEDS, A. B., M. D., Chickasha, Oklahoma

THE medical profession, today, in spite of the great advancements made in the science and practice of medicine, stands self-accused and convicted of palpable neglect of one of its most important branches, that of obstetrics. The realization of this fact by the profession is emphasized by the discussions, to a considerable extent, in the medical journals and association meetings, big and small, of the latest methods for applying the forceps, the most correct cesarean section, operative interference of every description, and the befuddling views of individual operators for the correction of abnormal conditions.

However, in the mad race for surgical and gynecological fame and the springing, mushroom-like, during the last decade, of embryonic surgeons, we have entirely forgotten, neglected and overlooked the greatest need along this line, namely, that

*Read before the Oklahoma State Medical Association, May 10-12, 1910.

of the prevention of these abnormal conditions. We have been tugging at the wrong end; we have had the cart before the horse; we have waited until the barn was all ablaze before we attempted to clean out the stable to prevent the fire.

From a careful and exhaustive study of the current literature bearing upon this subject, which could be found, it appears that, like the social evil, these things are considered necessary evils, and that all of our efforts must be directed along the lines of operative interference, and Herculean means be exerted at the time of confinement to remedy these conditions.

Having considered for some time that this view of the matter was erroneous and false and there was great need of an awakening, on the part of the profession, to some vital facts concerning this subject, I decided, upon invitation, to discuss this subject as my theme.

Care in the Early Months of Pregnancy

To point to a few causes, the reasons therefor, and the remedies, also to attempt to show that in the great majority of cases, patience and intelligent instruction on the part of the medical profession, in the early months of pregnancy, will obviate and prevent most of these abnormal conditions and hasten a return to the good old days of our grandmothers—when the use of forceps, and the bottle-fed baby, cesarean sections, extrauterine pregnancies, and all that, were, if not practically unheard of, at least a rare complication—will be the purpose of this paper.

When the position is taken by the author that the medical profession is responsible, in the vast majority of cases, for the deplorable physical wrecks resulting from the complications of modern pregnancies, he anticipates a storm of protest.

Yet the hollow-eyed women, pinched of face, with the freshness and bloom of youth forever gone—aged, as it were, in a day or a night, are ever-present accusers of our palpable neglect of this subject.

The girls of today, not only in the cities, but also in the rural districts, in the majority of cases, are ill prepared to undergo the physical demands of a normal pregnancy, much less an abnormal one, with its usual serious complications.

Let us briefly look over this desolate field of unnatural practices and witness the dire consequences following in their wake.

The practice, so prevalent, of mothers not preparing and educating the girl for the advent of the menstrual flow, and, through this ignorance, the health of the girl often neglected at this time, frequently with serious consequences; allowing girls to have company before they are hardly able to add and subtract, much less being prepared, physically, for irregular hours and the consequent exposure; the wonderful modern corset, in its shapes and latest cuts, varied as the legs of a dragon; the modern plays, shows, magazines and novels, with their usual perverted sexual suggestions; rapid, irregular, irrational and indiscreet eating, as practised by the American people—nick-nacks, candies, ice-cream; low-necked and thinly arranged clothing; early marriages, with no knowledge of the sexual side of married life; the horrible effects of gonorrhea and venereal disease, previously contracted by the husband and disseminated through the system of the young wife during the usually active sexual habits of the newly-weds; the practice of the old women, and more especially of the average physician, for that matter, of telling the recent pregnant woman that, no matter how varied the aches and pains, there is nothing to be feared or peculiar, and by this method and their attitude of jest and lack of interest and attention lulling the fears and anxieties with a false sense of security; all these things, and many more, contribute their part to the overburdening and poisoning of the ill-prepared systems and are responsible, to a great extent, for the sad results obtained in modern pregnancies and so often vividly and horribly depicted in print.

The old adage and saying "that the only service to be rendered by a physician during confinement is to prevent hemorrhage, turn the child or use the forceps," not only does not apply to modern pregnancies, but it is this very view of the matter so assiduously promulgated by the old women and the attitude of the average

physician that is the bane and the curse of obstetrics today.

A Case Which Illustrates

The following case will serve as an illustration: Mrs. T., age 22, wife of a stockman. Family history negative. During the early months of pregnancy the husband consulted the author, and was told of the necessity of reporting frequently the condition of his wife; also the possible dangers resulting from neglect. The husband was assured that it was so much better rather to be looking for trouble and not to find it than to allow trouble to steal upon and overwhelm us before we realized that there was any.

About a month later, after the husband's return from his ranch, he reported that while his wife was visiting a neighbor, some days before, she had been introduced to another physician and in the course of the conversation she had been told that it was no more than natural for Dr. Leeds (i. e., myself) to make a big fuss over his confinement cases, as he charged twenty-five dollars; also, this physician had noticed that Dr. Leeds always did put his pregnant patients to a lot of unnecessary trouble, but that his wife need not anticipate any trouble, inasmuch as her mother had not had any with any of her children. One examination of the urine a day or two before confinement was mentioned as being sufficient; also his charges would be $12.50, as against Leeds' $25.00.

The lady being naturally thrifty, this conversation appealed to her. The sample of urine, at the time suggested, was taken to the $12.50 physician, who, holding it up to the light, remarked that it was the best-looking sample observed in a long time. The fact had never been considered that the mother of this patient had never worn a corset, and during her child-bearing period, as the wife of a farmer, had led an unusually active outdoor life; furthermore, that this same mother had always tried to shield her daughter from every kind of hard work.

About midnight, a few days later, the author was called, with the admonition to come as quickly as possible, as the woman was having convulsions. The other physician and the author had a blood-sweating time, and the patient not only a very close call but a very tedious convalescence. Forceps and heroic efforts for very active elimination of all of the emunctories was the treatment necessitated. An examination of the blood and urine revealed an overburdened and poisoned system.

It is needless to say that the family and patient are not only thoroughly convinced of the necessity of the proper preparation of the patient during pregnancy, but they do not allow an opportunity to pass without making a comparison between the methods of the two physicians involved. Which of the two would you rather be?

Examination of the Urine

A mere cursory and occasional examination of the urine during pregnancy does not suffice. Neither will it give a true picture of the patient, because the symptom-complex, characterized by nausea, vomiting, headache, visual disturbances, delirium, coma, with or without albuminuria, casts or edema, hyperemesis gravidarum, and eclampsia does not so much mean a crippling of the kidneys as it does that there is too great a burden on all the emunctories.

Instead of being lulled by a false sense of security when we find that the urine is free from albumin in a patient complaining of some of the symptom-complex—though these may be slight—we ought to realize that the liver is an organ barely capable of performing its normal function in ordinary health, and that, when you add the natural toxins of pregnancy to its burden of every-day metabolism, it is but logical that the organ should undergo some degree of deterioration; also that the kidney trouble and edema, if present, are secondary, and that, in reality, it is the clogged emunctories which need our immediate and urgent attention.

Problems of the Modern Woman

Why can not we realize that the modern woman is an uncertain quantity, nervous though she may be apparently, yet well prepared physically?

Also, why can not we try to appreciate that the nervous organization of our modern women has been undergoing a gradual change since the time of our grandmothers?

Do we consider that our civilization has made such persistent and exacting drains on the organization that not only has the physical development been dwarfed but there has been developed a highly strung bundle of nerves, poorly nourished and sadly out of tune, hardly able to bear the little jars of everyday life, much less the depressing effects of pregnancies, without very material aid at the hands of an intelligent, well-prepared and careful medical adviser?

If we expected a mere horse to come anywhere near winning a race, we should hardly fail to give him the benefit of thorough, careful and intelligent training.

Do we use this same common sense, which the Maker is supposed to have given us, when we allow our pregnant patients to go along in a haphazard manner, during pregnancy, without any intelligent instruction and preparation?

Are we treating them as we should when we do not do all we can to place them in the best condition possible for the great demands which are made both on the physical and the nervous systems at the time of confinement?

Can we anticipate anything but haphazard results from our usual treatment of these cases previous to confinement?

Can we conscientiously be surprised and wonder when, with the treatment usually accorded these patients, we have the accidents and complications so common in modern pregnancies?

Does it not appear somewhat sneaking and contemptible, after obtaining these haphazard results, for us to flounder around, in our endeavor not only to satisfy the family and clear our own skirts of any blame, but also to attempt to shift the responsibility to other shoulders than our own?

The author, when a student, was advised by one of his professors to consider every patient tainted with venereal disease until a careful and exhaustive examination proved otherwise.

If this same advice were applied to our pregnant charges, so far as being normal or abnormal is concerned, we should surely obtain better results if we proved by careful and exhaustive examinations that there were no abnormalities present.

When Does the Obstetrician's Duty End?

Then, again, instead of lulling our consciences with the belief that, if everything goes right at the time of confinement —mother and baby, both living—our duty ends here, we should give both of them the care and intelligent attention they deserve. We should make a careful examination of the mother, three or four weeks later, for small scratches and lacerations of the cervix, uterus and perineum, and if found, treat and correct them; watch the nervous system for any evidences of a breaking down or depreciation of tonicity, and anticipate any suggestions of uterine trouble, such as displacements and like complications; and in this way try to leave the mother in as good condition as she was before pregnancy; neither would we be compelled so often to tax our explaining powers to the limit in our endeavors to assure the patient and family that the untoward results obtained were not and are not the results of our negligence and lack of proper advice or attention.

The practice of the author has been to give the patient and family distinctly to understand, at the time of confinement, that he does not consider his confinement cases dismissed until after he has satisfied himself thoroughly by a careful examination, in the presence of at least one member of the family, some three or four weeks later that the patient is in as good condition, physically and nervously, as she was before pregnancy.

How I Saved Myself From Trouble

The following case will show that this practice of the author stands one in hand quite frequently.

Mrs. S., age 24, extremely nervous temperament. In her first pregnancy and confinement she had no trouble of any nature, except that she was unable to nurse the baby. When she was six months

pregnant the second time, she not only received quite a nervous shock, but, as a result of the shock, worried continually. The confinement and convalescence were normal, baby was all right, and this time she was able to nurse it.

Three weeks later, in the presence of her mother, the author examined her carefully and showed that the uterus, cervix and perineum were normal. However, the patient was advised to be very careful for some little time, because she had had quite a large child, was nursing this one, and had not fully recovered from the constant worrying and shock of three months previous.

A short time after this examination, there was added to this depressed condition of the nervous system the effects of another nervous shock, though of a different nature, and, as a result, the patient developed an attack of insanity, together with quite an antipathy to her family physician, the author.

Another physician was called, who, without an examination, suggested that the cause of the patient's trouble was a lacerated cervix which had not been repaired. The mother of the patient was up in arms at once, telling this physician that she knew better than that, because only a few days before Dr. Leeds had examined her daughter and at this examination had shown her, so that she was satisfied that there was no trouble there. The mother and husband becoming dissatisfied, the author was consulted and, at his suggestion, the patient was taken to Dr. Punton's Infirmary, at Kansas City, Missouri, the baby taken from the breast and a uterine sedative given the patient, in the hope of establishing the periods. Twenty-four hours after reaching the infirmary the patient began to menstruate, her mind became clear, and in a reasonable length of time she entirely recovered.

When the author learned what the other physician had tried to do to him, you can not imagine how glad he was that he had examined the patient as he had, and at the time he had, and, too, had shown her mother what conditions were present. Dr. Punton, at the suggestion of the mother and husband, examined the patient particularly in that region, and verified the statement of the author.

Unjust criticism might have been engendered against the author by the other physician had this examination not been made at the time it was and in the manner mentioned.

(To be continued)

Picking Pickaninnies

Observations on Obstetrical Practice in Africa

By RALPH ST. J. PERRY, M. D., Parkers Prairie, Minnesota

EDITORIAL NOTE.—Years ago Dr. Perry was a missionary in Africa, in the days when the "Dark Continent" was dark indeed. The readers of "Clinical Medicine" have had the opportunity to hear of some of his adventures, which were always fascinating, frequently thrilling, and not infrequently amusing. This paper is peculiarly enjoyable.

EVERY once or twice in a while some curious-minded individual asks me a multitude of questions regarding the midwifery business in Africa, so I am now taking my pen in hand to divulge for the benefit of those who think of emigrating to, or thirst for knowledge of, that land where practice and experience are plenty, where there are no licensing boards, and where malpractice laws are unknown, except those of self-preservation and revenge.

If we want to get oranges, bananas, pineapples, mangoes, or any tropical fruit in all its natural flavor and lusciousness, we must go to the lands where those fruits are indigenous, to the place where we can pick them as they have ripened under natural conditions. So, too, with that other tropical fruit, the pickaninny: if we want to

observe its advent into the world after the fashion of its kind, we must go to the primeval home of the descendents of Ham, where Nature still takes her course after the methods and technic originally introduced by the late Mrs. Adam, past grand ancestrix of the present population.

Just Like Mother Eve: Sans Accoucheur, Sans Trained Nurse

The advent of a pickaninny in the original habitat of the Sons of Ham does not create that intense interest in the family circle which surrounds the birth of a white child in the United States or Europe. No prenatal showers, no aunties or grandmothers bend their energies in the preparation of fancy clothing, bassinets, knit silk socks and booties, and the many other sartorial tid-bits which go to make up the wardrobe of the American babe.

Neither does any doctor or trained nurse look after the interests of the mother and child when the natal hour arrives; in fact, there seems to be an astonishing simplicity about such events, the which would make our M. D.'s, supertrained nurses, and pampered patients hold up their hands and roll their eyes in "holy horror" at the lack of asepsis and antisepsis, and would surprise them at the absence of sepsis. Several times it has been my fortune to be in some up-country village when the conclusion of a cycle of perpetuation was imminent, and to have seen the woman in the case suddenly cease her rice beating, coffee raking or other outdoor work and retire with a woman companion to the privacy of her house, from whence she would reappear in an hour or less with a brand-new pickaninny.

"Just like animals!"

Sure, animals just the same as you and me, a subspecies of homo sapiens, but who have retained much of that primeval strength which you and I have lost through our process of civilization. And after the functions immediately incidental to the nativity had been completed, I have seen the neoteric mother wade into the nearby creek and perform her ablutions without any evidence of fatigue or disability, absolutely fearless of germs or shock, and without attracting any undue attention from the passing throng.

Can you imagine such a thing occurring in the United States? And, yet, once it did, thousands of times, among the Indians, before the white man transferred to them his burden of disease and bad whisky. But even today it near-happens in the colonies of those peasant emmigrants who have taken up their abode in the newly opened lands of our northwestern states.

Spartan Methods, Up to Date

In the meanwhile the woman companion has been preparing a mess of mashed peppers. That is, capsicum peppers are boiled until soft, then mashed to a pulp, or mush, and this mush is stuffed into the *pequeno nino's* ears, nose, and mouth, and rubbed over his body and limbs. The child is then greased with palm oil and laid upon a country cloth out in the sun for several hours. If he or she survives the ordeal, he or she is then accepted into the family and community as a worthy descendant of Ham.

This method of testing the vitality of babies smacks muchly of the Spartan methods of old, and while it probably is tough on the youngsters, I never knew or heard of one dying from the effects thereof.

Having demonstrated its ability and physical fitness to live, the child is now cleansed of its peppery coating, washed thoroughly, then greased with burnt palm oil, which completes its toilet—no bandages, swaddling clothes, pinning blankets or other clothing, except at night perhaps a wrapping of country cloth while it lies cuddled up next to its mother. Neither is the baby doped with catnip tea, sugar water, "a wee bit o' whisky," or any of the many other devices which Caucasian customs have invented as substitutes for nature's methods.

The new-fledged mother is not flooded with advertisements of patent baby clothes, cribs, carriages, and all that, nor with samples of baby foods galore; everything runs along smoothly and very seldom indeed does a native child suffer from colic, summer complaint or any of the multitude

of children's diseases which are so generally devastating civilized communities.

Nature's Baby Carriage

In carrying the baby, these mothers resort to a method which is evidently adopted or descended from their tree-living anthropoid neighbors and ancestors, the youngsters being merely lifted up to its mother's waist, where it clings to her body with its legs around her hips and its little hands grasping her arms, ribs, neck or whatever it can get hold off. This is evidently a precarious way of carrying a baby, but it is in reality merely an appeal to the instinctive functions of the child, who inherits from remote generations the impulse to hang on to whatever it grasps. Carrying her child thusly, the mother will go about the daily work of gardening, field work, and other duties, and never once sigh for a kindergarten or day nursery upon which she can shift the responsibilities of child training.

Nor have any of the infant-food makers as yet succeeded in invading the African family circle, and the negro baby still thrives upon the same variety of pabulum in general vogue since the days the original Noah family homesteaded upon Mount Ararat after the ark jolted against that altitudinous rock. The mother nurses the child until all of its teeth are cut and it is fully competent to masticate and digest the various foods ordinarily used by the family at its regular meals. Many times have I seen a two- or three-year-old pickaninny abruptly cease its playing and run to its maternal lunch font for a five-minutes' refreshment sćance.

As the child completes its dentition and is prepared to shift for itself a little more, the mother is prone to resort to the stuffing process when she wants to go to a bargain sale or visiting among her neighbors, which stuffing consists in cramming the interior of the baby with as much rice and palm butter as can be forced into its alimental highways and byways. Once I undertook to remonstrate with a buxom young mother on this matter of juvenile gorgement, having caught her *in delictu flagranti,* telling her it was much like the French custom of stuffing the geese that were destined to donate their hepatic organs for the making of *paté de foie gras;* but my a-la-humane-society effort was of no avail, for she confidently informed me that she could not put into the infant's storage room any more than its stomach could take care of and that, as it had been done in her family for many and many generations, she did not now purpose to initiate an entire change of program just to oblige me. Thereafter I ceased to "butt in."

During the time I traveled up and down the Guinea Coast and in and out of the Kong Mountain Country, I do not remember ever having seen a congenitally deformed child. They either failed to show up in the natal products or else were eliminated by the gentle pepper-stuffing process. Nor do I remember ever having seen a case of ophthalmia neonatorum, although nothing particular was done to prevent any such trouble. Only one case of deaf-mutism was encountered, and this specimen seemed to be as much of a curiosity to the natives as he was to me.

A Forceps Case

An unnatural or abnormal labor seemed to be an almost-never experience, and instances where a forceps delivery seemed indicated were few and far between. I remember one time being in a village when a young matron was experiencing her first experience in the maternity line. Things did not progress as smoothly as was desirable because of a large fetal cranium, even for an Ethiopian. In the emergency, an appeal was made to the white-god-doctor for help.

Only too glad of a chance to show off my beautiful nickel-plated obstetric forceps, I most cheerfully consented to officiate. But when the mother-to-be and her attendants saw the glittering instruments, there arose such a storm of protests that I was forced to give way to a native expert, who greased his hands with burnt palm oil and "went after" that baby. He got it, too, alive, squalling, and kicking, and without apparent injury either to mother or child. Just what his manipulations were, I could

not see, nor could he explain to me, as he knew no more regarding occipito-mental diameters, straits, tuberosities, planes, and that sort of thing, than a jack-rabbit. Having accomplished his mission, he took his fee of one chicken and departed.

Accidents of Labor

. The women of the Guinea Coast seem to be free from those accidental lacerations so frequently seen in American women. This is undoubtedly due to their unusual physical perfection. In the interior towns the maiden meanders up and down the country lanes, unfettered by clothing or drapery from birth to puberty. Occasionally she may wear a girdle of a string of beads or a few silver bracelets and anklets, but that only on festive occasions. In early childhood she learns to carry water in a five-gallon kerosene can balanced upon her head, to beat and winnow rice, to fish and swim, and the many chores which fall to the housekeeper's lot in Africa. By the time she has ripened into young womanhood, she is the proprietor of a body that is fully competent to take up the burdens assigned to it by nature.

Naturally, the practice of gynecology is very limited among such a class. As previously intimated, I was never called upon to repair a lacerated cervix or a ruptured perineum, never saw a case of mammary abscess or heard of a case of puerperal fever or postpartum hemorrhage. Doubtless such accidents do occur, but they are very unusual.

Before sailing for Africa I spent a day with my friend, the late Prof. Theophilus Parvin, of Jefferson Medical College, who at that time was interested in collecting deformed pelves. At his solicitation, I agreed to ship him several specimens from Guinealand, but albeit I kept my eye "peeled" for some colored lady from whom I could abstract a pelvis not conforming to the regulation standard, I regret to say that Parvin never received any African specimens from my territory, for the very good reason that I never came across one.

Procreative Simplicity

The reproductive function is looked upon by the natives as a natural one, and there is no attempted evasion of the divine command to go forth and multiply. Pennyroyal pills, whirling sprays, antiseptic douches, and other like requisites of civilized sociability are unknown to these children of nature. A bride is expected to become pregnant within a reasonable period, and the fulfilment of these expectations causes no unusual excitement or gossip at the sewing society or ladies' aid. As soon as a woman's condition becomes "interesting" her husband lets her alone so far as sexual intercourse is concerned, and continues to let her alone until the child is weaned!

How different from the practice in civilized Christian Europe and America. This law—for it is a tribal law—has had such a tendency to reduce the population that some years ago an effort was made by the Liberian and British officials to reduce the period of abstention from three years to two after the birth of the child. But the motion to amend failed to carry.

The one saving feature which keeps up the population is polygamy. A man is allowed to have as many wives as he can provide for, and as provisions are cheap, the larder is usually well filled. Awful, "ain't" it? Yet, under the Mohammedan law, a wife has all the advantages of a woman anywhere in the world, and more than in America. The polygamous wives in Africa are not so numerous as one would suppose, and they are far happier and more contented than you imagine.

Polyandry is also practised in some places, and I once had the acquaintance of Sandymandy—fat, fair and forty—who boasted of seven children by as many different fathers; and old Sandymandy trotted in the select circles of Ethiopian society.

The mother nurses her baby, p. r. n., literally. She never heard of Holt's learned dissertations on baby feeding, and she wots not of germs—just cuddles her pickaninny up close to her chocolate-colored bosom and lets the little rascal root for his dinner. One peculiarity of the African mammary organ: the prolonged period of lactation, from two to three years, brings about an enormous elongation of the gland, and it is nothing unusual to see

the lactiferous appendages dangling down to the waist line. The baby can cling to the mother's hips, and with the nipple in its mouth contentedly suck away while the mother, industriously wields the hoe.

In case of the death of a nursing mother, the infant is promptly taken over by some other mother who acts as wet-nurse and raises the child. In fact, there seems to be a community of ownership in matters of babies and mammary glands, for I have frequently seen a mother nurse several children besides her own, while seeing the same baby tapping several different milk bureaus in succession.

The nursing bottle, which is a *sine qua non* in many of our civilized homes, is an unknown commodity in Guinealand. I remember one Christmas box which when opened was found to contain half a dozen old-fashioned nursing bottles, and which caused immense excitement, commotion, and amusement among the "cullud ladies" present. The bottles lay around the mission house for a while and eventually disappeared. Months later I was suddenly stricken with an attack of acute hilarity upon seeing the chieftain of an up-country village solemnly sucking gin toddy from one of the nursing bottles, a procedure which a mischievous mission boy had told his Ethiopian nibs was the proper caper in exclusive society down at the coast.

One thing about these pickaninnies puzzled me for quite a while, and that was the absence of that triangular gluteal bandage, the diaper. But one day there came an enlightenment. I chanced unexpectedly to come upon a young mother seated upon the grass with her lower extremities extended in front of her, the feet about six inches apart; straddling her shins was her baby, joyfully engaged in the act of depleting its dear little colonic tube. Instantly the full technic of the procedure burst upon me, while at the same moment the mother and I discovered each other's presence, so, amidst mutual embarassment and suffused with blushes I hurriedly vamoosed from the scene. Later I learned that the toilet is completed by a wash in the creek or by means of a plantain leaf.

Fully half the children in Guinealand wear door-knobs, instead of retracted navels, due doubtless to the lack of proper treatment of the cord at the time of birth. These umbilical hernias are so common and apparently so harmless that no one pays any attention to them. I used to amuse myself by catching the little tots and gently pressing the hernial contents back into the abdomen, only to see it pop out again; the titillation producing most hilarious cachinnations. Such a condition here in America would create a furore for navel surgery, but I never saw or heard of a case where one of these umbilical hernias caused any trouble, and their owners wear them unprotected during all their daily labors throughout lifetime.

The General Practitioner as a Gynecologist

Every-Day Helps for Routine Work

By GEORGE H. CANDLER, M. D., Chicago, Illinois

THE physician practising in country districts has, of necessity, to do a certain amount of gynecologic work, but only a very few specialize in this direction, and so the average doctor, failing to relieve the more serious or chronic pelvic disorders with douches, ready-made vaginal tablets and suppositories, recommends his patients to go to the city and consult a specialist or—equally detrimental to his reputation and bank account—orders them to the local hospital where, as a rule, some trivial operation is impressively done and the ultimate recovery of the patient attributed thereto, whereas, in three instances out of four, the rest in bed and maintained conditions of surgical cleanliness are really responsible for the cure. With a little personal preparation and a trivial outlay of money, every doctor could

do three-fourths of the gynecologic work in his district and benefit materially thereby.

As a matter of fact, the physician who graduated ten years ago received a very poor gynecologic training and not one man in fifty could, on the receipt of his diploma, correctly select and properly place a pessary. More recent graduates were impressed with the idea that operation of some kind should be performed—or recommended—in practically every disorder of the female genitalia. As his idea of how these operations should be done was gained by watching from a distance the professor operate in the hospital amphitheater, he naturally either failed dismally when he endeavored to perform the work himself or from the first "referred" his "hard" cases, confining his personal activities to vaginal packing and an occasional curettage.

The main difficulty the well-educated physician experiences in his gynecologic work is the determination of the exact conditions present in the pelvis and the selection of the treatment best adapted to the case under observation. His fingers (and eyes) have not been trained to recognize minor pathologic conditions and no one dreamed of teaching him how to correct such disorders by the institution of comparatively simple therapeutic procedures. It has been most distinctly an "era of steel" for the gynecologist!

It is with the hope that just such information may be of service to hundreds of busy doctors that this article is written; the man who by special effort has become familiar with the nonsurgical treatment of pelvic diseases will find in it little of interest, while the surgically inclined will perhaps wonder how, in this year of grace, any writer should dare to advocate local treatment when "an operation" would be so much more impressive—and lucrative to somebody!

The Gynecologic Outfit

The gynecologic armamentarium required by the general practician need not be extensive. He will require a good examining table for chair, and the young or impecunious doctor can obtain a perfectly satisfactory article for less than twenty dollars. His choice here should be a plain table or enameled chair with pantasote-covered cushions, stirrups, and folding leg-rests. The more elaborate cabinet-tables and ornate surgical chairs cost from fifty to one hundred dollars and may be bought on the instalment plan, but just why the doctor should go in debt thirty to eighty dollars for a piece of furniture when he can own outright its equal in practical usefulness for the amount of the first payment demanded is an unsolved problem.

Most enameled steel chairs—and some tables—are equipped with a standard and an irrigator. The writer prefers a separate irrigator stand, with two reservoirs. An enameled instrument-table and two enameled hand basins (one blue the other white) held in a light metal stand with a bottom shelf are essential. Two metal pitchers of two to four quarts' capacity, a metal instrument tray, a couple of smaller basins and a slop-jar may advantageously be added. The irrigator may be of metal, but glass is preferable. Rubber fountain-syringes are an abomination outside the home—and not desirable there.

The table should be covered with a clean white sheet and a fresh towel be placed on the head-rest for each patient. Two dozen surgical towels at least should always be on hand. They are best kept pinned up in a piece of linen in packages of a quarter dozen. They should, of course, be sterilized. The country doctor can boil, sun-dry and then bake his office linen and feel quite comfortable about its surgical cleanliness. All dirty towels should be thrown into a closed dry receptacle, and waste cotton, tampons, etc., into a container half filled with a carbolic solution. Each article should be emptied and thoroughly cleaned daily. If the instrument-table has a cupboard underneath (and it should), the towels, tampons, cotton, etc., should be kept there. In any case, these articles must not be exposed unless in use.

Instruments Absolutely Needed

The instruments absolutely required are few; any number may, of course, be used, and undoubtedly the good workman prefers to have a full and adequate "kit of tools."

A Sims "duckbill," Goodall's bivalve, and pair of Simon's (curved and flat-blade) speculæ, a vaginal depressor, long straight dressing forceps, uterine sound, flexible silver probe, single and double tenaculæ, a cervical dilator, and a set of rinsing (sharp and dull) curetting spoons are the real essentials. The doctor is supposedly supplied with scissors, artery-forceps, needle holders, and the knives regularly used in minor operations. These will serve in everyday gynecologic work.

Some arrangement must be made for direct lighting of the vaginal canal. A head-mirror and student's lamp may be used where the electric current is not obtainable. Perfectly practical and portable electrically lighted diagnostic outfits are on the market, but the average man can get along quite nicely with a gas flame or even a good lamp and a mirror. It is desirable, perhaps, to have a small electric lamp available; for ordinary bedside work one of the better-quality flashlights found on the market answers every purpose.

Metal applicators are not much used today; wooden rods can be procured for little or nothing, a fresh one being used for each application. However, a "screw-point" and two or three aluminum (rough-ended) applicators may well be procured. They are especially useful outside the office. A hard-rubber (or metal) syringe of two to four ounces capacity, with uterine, rectal and vaginal tips, is an absolute essential; it is also well to have a small (2-dram) hard-rubber (or glass-barreled) syringe with long semiflexible nozzle for making intra-uterine applications.

Other Appurtenances

An abundant supply of good-quality absorbent cotton should be kept in a dust-tight container; a cheaper cotton may be kept for cleansing or swabbing purposes. This may be used from the roll. Plain sterile gauze, besides iodoform, or better, bichloride or bismuth-formic-iodide, gauze may be bought in 1- and 5-yard glass containers. The gauze is drawn out and cut off as required. A roll of wool for tampons should be on hand. Any doctor's wife or a nurse can make up the tampons as required. The necessary length of wool is cut off, wrapped in gauze and a tape tied securely about the middle. It is infinitely better to use several small tampons than one or two large ones. The latter never "sit" snugly, as they should.

Bichloride, "astringent-antiseptic" and boric-acid tablets are, of course, required. A liquid soap, creolin or similar preparation, alcohol, carbolic acid, ichthyol or carbenzol, glycerin, iodine, a local anesthetic, and dioxide solution should be available always. Each physician will of course have his own favorite formulas in addition. The writer would not be without a good aqueous preparation of calendula, thuja, colorless hydrastis, and solution of thymol iodide in purified oil. A good vaginal antiseptic powder, put up in 2- or 4-ounce packages, should be kept in stock. One teaspoonful dissolved in three pints of water makes the ideal douche. Patients visiting the office at intervals of days should be supplied and instructed thoroughly in their use. Copious hot astringent douches often work wonders.

The Operating Table and Preliminary Preparations

In "one-room offices" the table should be shut off from observation by a folding (enameled) screen. The physician should wear a clean white laundered coat when examining or treating patients, and it is desirable that his woman assistant wear a nurse's dress or at least a spotless white cotton overall and cap. Rubber gloves are desirable but not essential. Really clean hands are preferable, except, of course, when specific or pus cases are on the table.

The table being prepared, the irrigator half-filled with a creolin or bichloride solution (or both), and the pitchers containing hot and cold water, the instruments required should be placed, covered with a sterile towel, upon the instrument-table, and this and the irrigator stand be wheeled into position.

The doctor scrubs up with any good antiseptic soap, using the white basin, and then finishes by soaking his hands in his favorite germicidal solution in the blue basin. Meanwhile the assistant has placed

the patient upon the table and cleaned thoroughly the outer parts, first with soap and water, then with a creolin solution, and, if circumstances require it, with alcohol. She then covers the vulva with a sterile towel and the lower part of the body with a sheet. If the doctor has to do all this himself, he first roughly washes his hands, then prepares the patient and finally rinses off in the germicidal solution. For ordinary office examinations and treatments the procedures need not be extensive and take up but little time; if, however, any operative work is to be done, the preparatory technic must be as thorough as possible.

The instruments to be used, having of course been boiled or otherwise sterilized, are now placed in a basin and boiling water is poured over them. Any antiseptic of a noncorrosive character may be added. The writer still prefers creolin. Chinosol, however, is an excellent germicide and nontoxic. Carbolic acid, though of course cheap and very generally used, will be found decidedly objectionable in every way. A good lubricant—preferably in collapsible tubes—should be available: carbolized vaseline will meet the requirements, but some one of the sterile jellies prepared from chondrus crispus (Iceland moss) are infinitely better.

In any operative case, or if a douche is to be given, the patient should be placed upon a Kelly or similar rubber pad with drainage apron. The end of this should hang down into the slop-jar. The patient and doctor prepared and the instruments and dressings ready, it remains only to find out just what has to be done and do it in the most satisfactory manner.

Examination of the Patient

Naturally it is not essential to prepare extensively for an ordinary examination. It is quite desirable even here, however, to impress the patient with the care observed and the cleanliness maintained. Hence, as stated, the covering of the table should be fresh (at least a clean towel should be placed) for each case, and the doctor should not only carefully wash his hands but also the external genitalia of his patient before proceeding to make the most simple digital examination. I am aware that it is not always possible to perform the latter part of the program thoroughly, but one can at least swab the outer parts with cotton pledgets and soap and water or a creolin solution. The vaginal canal may be left alone if a simple digital examination is to be made. If however even a speculum is introduced, swab and lubricate. If applications are to be made or extensive manipulation is expected, invariably flush the canal with creolin, bichloride or chinosol solution.

Before the patient ascends the table, the doctor will of course have obtained, by questioning and observation, as full clinical data as is possible. History-sheets are procurable at a nominal cost and every practician should utilize them. The essential points are: present symptoms, their character and duration; beginning of trouble; previous health; occupation; age; married or single; confinements; miscarriages; menstrual conditions; date of last menstruation; complicating disorders. It is also well to find out something about the patient's temperament, domestic conditions, husband's sexual habits, etc.

Further, bear in mind always the necessity of looking carefully for indications of disease in organs remote from the pelvis. If symptoms of cardiac, renal or gastrointestinal disorders are present, examine these organs; in practically every case it is well to examine a specimen of the 24-hour output of urine. Numerous laboratories exist at which this work is done promptly and for a nominal fee.

From the preliminary conversation, the doctor will be able to discover the particular symptoms from which the patient desires relief; and even though a far more serious underlying disorder exists, it is well to remove the symptoms as rapidly as possible; the patient then realizes that "something is being done" and more readily submits to tedious or painful—but essential—procedures.

Before allowing the patient to leave the table, assure yourself (if at all possible) that you know definitely the cause of the symptoms she complains of. If the underlying

pathology remains obscure, relieve the most distressing condition to the best of your ability and arrange for a further and more minute examination. Remember always that the removal of symptoms does not mean the correction of the cause—to cure a disease it is necessary to overcome the basal disorder. While it always is essential to cure, if at all possible, it is also the part of wisdom to give relief at the earliest moment. Doctors who "get results" get the practice: the doctor whose results hold retains his patients—and converts them into enthusiastic boosters, besides. The man who merely secures temporary results, however brilliant those results may be, has a floating clientele always, and a great many busy detractors.

Details of the Examination

The woman (who may have been provided with a fan) having been placed on the table, the abdomen should first be examined. Proceed deliberately and familiarize yourself with conditons. Note abnormalities carefully, especially tender areas. Now examine the external genitals. If the patient is a virgin, use the fingers only and do not uncover her unless absolutely necessary. In every such case *have a third person in the room.* If ocular examination is essential, inspect the perineum, meatus, clitoris, and labiæ. Now make the vaginoabdominal exploration.

Occasionally, when some well-defined symptom is described, it is desirable to make a digital examination first, proceeding with the abdominal and vaginoabdominal exploration only if necessary. In such cases it not infrequently is preferable for the patient to stand erect. In office practice, however, the routine outlined will usually be followed. Instrumental examination is deferred till the last. Finally—provided conditions demand—the rectum is examined; first digitally and then, if desirable, instrumentally. A finger-cot should always be worn during rectal exploration.

Position of Patient During Examination

It is hardly possible, in an article of this character, to describe in detail the various positions the patient should assume. Briefly, for abdominal inspection, the patient should be placed flat on her back with the head slightly raised and the knees drawn up enough to secure relaxation of the abdominal muscles. Not infrequently a satisfactory examination of the external genitals and vagina may be made in this position, the patient merely placing her feet in the stirrups attached to the side of the table and the operator dropping the leg-rests. This enables the doctor to stand immediately in front of the pelvis. If desirable, the head of table may be depressed and the slings applied; the woman's limbs are thus elevated, the pelvis tipped, and the intestines are moved toward the thorax. The vaginal opening, moreover, is brought on a level with the operator's chest, so that necessary manipulations can be made without stooping. For all deep pelvic manipulations this position is preferable; the limbs may of course be drawn backwards (knees flexed) upon the body to as great an extent as may prove desirable. During examination, the limbs should be covered with a sheet, the edge being turned back only just as much as is absolutely necessary.

The Sims, or "left-lateral prone," position is secured by placing the patient on her left side, with her left arm behind her and the chest turned toward the table as far as possible. The upper part of the body rests on the left breast, the hips are near the lower left corner of table and the body extends diagonally across toward the right side. The left thigh is drawn up till it forms an acute angle with the body; the right is raised still higher and allowed to drop over the lower limb. All constriction is removed from the waist line, as the object of the position is to allow the abdominal wall, intestines and uterus to fall forward. In this position a Sims speculum is readily introduced and a perfect view of the buttocks, anus, perineum, and vaginal orifice is secured.

This posture and speculum are desirable whenever the bivalve speculum fails to expose the cervix; whenever it becomes necessary to bare a lacerated cervix without separating the lips; when it is desirable to dress the cervix or vaginal fornices without

unduly distending the lower portion of the vagina or making tension upon the perineum i. e., when removing sutures or gauze drain from the cervix of a patient with repaired perineum; when sounding the uterus, making intrauterine applications or dilating the cervical canal; when packing the vagina to control hemorrhage or to support the uterus; during curettage after miscarriage: by the use of the Sims speculum and position the necessary manipulations can be readily made with the least possible disturbance of patient; when incising, irrigating or dressing an abscess or sinus in the posterior cul-de-sac.

(To be continued)

Ingrown Toe-Nails

By BENJAMIN H. BREAKSTONE, B. S., M. D., Chicago, Illinois

Professor of Clinical Surgery in Bennett Medical College, Medical Department of Loyola University; Attending Surgeon, Jefferson Park Hospital; Member of the Consulting Staff, Cook County Hospital; Consulting Surgeon to Mary Thompson Hospital

EDITORIAL NOTE.—This article is a continuation of Dr. Breakstone's interesting series in "Everyday Surgery." Every reader of CLINICAL MEDICINE *should read every one of these papers.*

THE subject of the management of ingrowing toe-nails is certainly of everyday interest. The trouble is exceedingly prevalent, and the afflicted individuals suffer excruciatingly, yet they

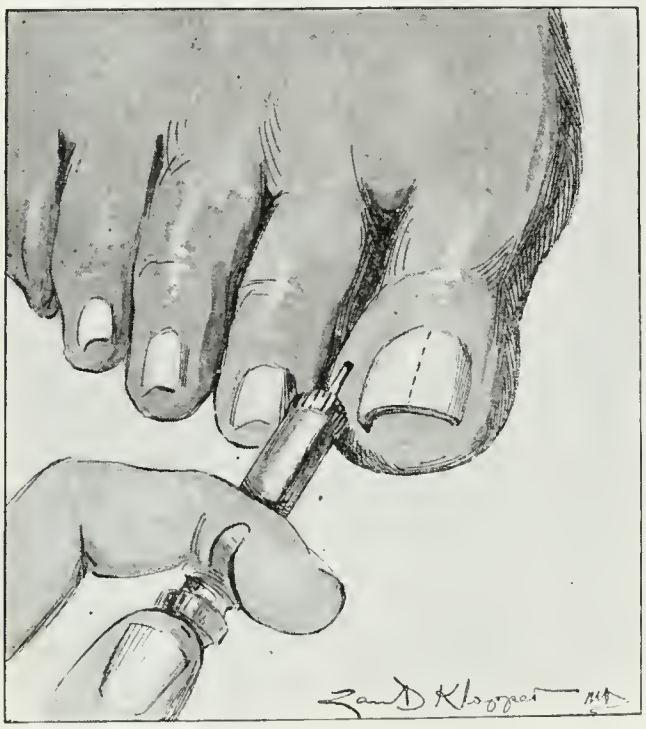


Fig. 1. Anesthetizing the operative field

but rarely consult a regular physician, and I do not remember having attended a single clinic where a case of ingrown toe-nail was exhibited. For this reason, the field is left wide open for professional chiropodists, who, as a class, are ignorant of surgical technic, anesthetics and wound treatment. One very prominent chiropodist of Chicago told me that he treats a great many physicians suffering with ingrown toe-nail, and they express surprise with what little pain this condition can be relieved, although chiropodists do not use any local anesthetic, as a general rule. A few of them are using anesthaine with

Fig. 2. Splitting the nail

very good results, but the less up-to-date ones employ a weak solution of carbolic acid as the only anesthetic. Infections

occur very frequently following operations by these chiropodists, and then the patients are forced to consult a surgeon. From a financial point of view, it is surprising what large fees these specialists get for such a minor operation.

The vast majority of ingrown toe-nails occur on the inner side of the nail of the great toe, the skin and soft parts of which are forced over the nail by a tight shoe. The inner side of the nail, when the foot is in the shoe, then keeps on digging into the soft parts, making walking extremely painful. The patient as a rule is then crippled. Usually he tries to push the skin back with some kind of instrument and thereby infects this wound. Then

Fig. 3. Removing a portion of the nail

redness and swelling take place, there is a local absorption, when all the symptoms of an abscess are present.

Many methods of relief have been devised. Let us discuss some of the more common ones.

1. Filing of the middle of the nail, so that it is divided in half, is a very common method used by the laity. The object is to get the two separated halves to overlap each other at the middle, thereby relieving the pressure at the sides of the toe-nail. This method is a very good one, but affords only temporary relief, as the nail grows together, and where it has been

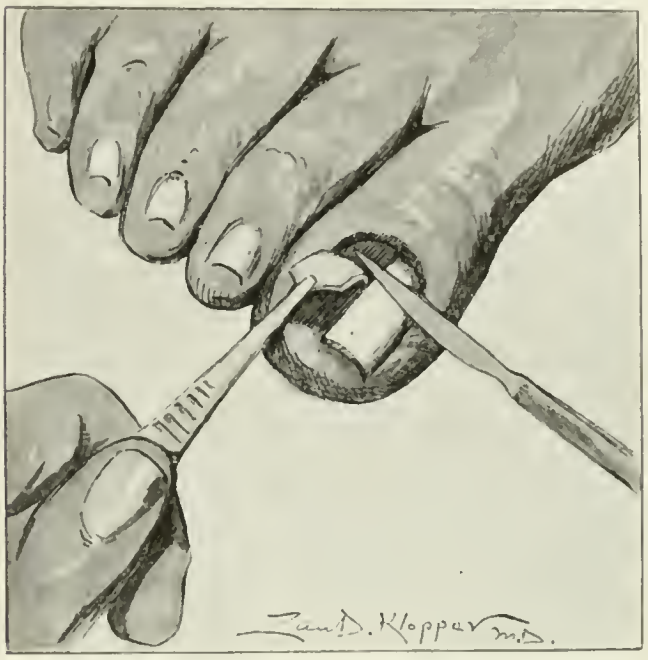


Fig. 4. Dissecting nail-bed and matrix

filed in half an hypertrophy occurs, so that within several months that nail at that part becomes exceedingly thickened, necessitating more frequent paring and filing.

2. In the beginning, the trimming of the nail closely at the inner side and train-

Fig. 5. Curetting off matrix and nail-bed

ing the skin under the nail will give relief, especially if a wide shoe is worn and if this process is performed frequently.

3. Some surgeons merely remove the skin and soft parts, but that leaves the inner side of the nail free play, and its sharp edge then digs into the under side of that toe or the adjoining one.

4. The only radical cure is the removal of half, and in very bad cases, all of the nail, together with the nail-bed and matrix. This can be done bloodlessly as well as painlessly.

This is the operation as preferred by myself: After going through the usual aseptic preparation of the part, a rubber band is applied at the base of the great toe, to act as an Esmarch constrictor, which will make the operation bloodless. Then the anesthetic—either a two-percent solution of cocaine or of anesthaine—is injected entirely around the nail, as is shown in Figure 1. While waiting for this solution to take effect, the instruments, consisting of a sharp scooped curet, scissors, and tissue-forceps, are prepared, and iodoform gauze, plain gauze, cotton, and a bandage got ready.

In ordinary cases, only half the nail is removed, but where it is ingrown on both sides, the entire nail is removed. In the vast majority of cases, however, only half of the nail should be removed. The scissors, therefore, are introduced in the middle of the distal end of the nail, and the nail is divided clear to the proximal end. Then, with the tissue-forceps or a stout artery-clamp, the nail is pulled off its bed, and out from the matrix. (See Fig. 4).

Now comes the most important part of the operation, which is the removal of the nailbed and matrix of the part of the nail removed. This is done either with the tissue-forceps and scissors or with the sharp curet. If infection is present, you must curet away or dissect away all of the infected tissue. In order that the nail may not again grow, you must be sure that not a particle of the exposed matrix and nail-bed remains. Next the wound is filled up with iodoform gauze, dressed with plain gauze, a narrow gauze bandage applied, which is held in place by adhesive plaster, and then the rubber constricting band is removed. The patient now will be able to walk home. This simple operation can be done in any office, and, as here described, it is absolutely painless. The wound is not redressed for several days; and after two or three such dressings the patient is completely cured.

Scarlatinal Nephritis

And How Best to Treat It

By HENEAGE GIBBES, M. D., C. M., L. R. C. P. (Lond.), Mc Alester, Okla.

EDITORIAL NOTE.—This paper is the first of a series of three upon the different forms of nephritis. Of this subject, as of many others, Dr. Gibbes is a master, his therapeutic conclusions being drawn from an intimate acquaintance with the pathology of the disease. His articles will richly reward careful study.

SINCE the time of Cotugno, who first discovered that the urine of dropsical patients sometimes contained albumin, and which he considered resultant from an altered condition of the blood-serum, up to the present time, the classifications suggested have been many and various. Dr. Blackall of Exeter, England, was the first observer who connected albuminuria with actual disease of the kidney. A few years later Dr. Bright worked out this idea with such a degree of completeness that his name has ever since been associated with disease of the kidney. Dr. Bright distinguished one form, but three varieties, of diseased kidney as associated with albuminuria, and considered that each variety was only a stage toward the development of the complete form, which he considered was the "granular kidney." I have for a period of thirty years, or longer, been systematically collecting diseased kidneys, and grouped them according to the diagnosis of the cases.

It would be of no use to go over the views held by Johnson and others. As to Dr. George Johnson, I worked with him on kidney disease, and he had a fixed idea and everything had to be fitted into this idea.

Now, when a man has the most elementary knowledge of the normal histology, it is obviously absurd for him to make out a theory based on the morbid changes in an organ when he has but the very slightest knowledge of its normal condition; and, yet, this is what is being constantly done. The normal histology of an organ is the most important consideration for any man to know before he attempts to describe a pathological condition in that organ, and next to that is the function of that organ normally, then, with a thorough knowledge of structure and function, a man is prepared to understand the change that disease has produced.

My Study of Diseased Kidneys

Having accumulated a number of sets in the shape of diseased kidneys, they were all carefully hardened, then sections were made, each kidney being kept separate and sections made from different parts of it. Each kidney was taken in turn, being grouped according to the clinical diagnosis. The sections, after staining and mounting, were examined and the conditions entered in a notebook. After this had been done in a number of cases, they were labeled and numbered and placed in the group to which they belonged. In this way it was comparatively easy to work out the morbid histology in each case and see where the departure from the normal had taken place and what its nature was.

The group that came under the heading of scarlatinal nephritis was separated and a number of sections of each case were examined, written up, and then compared under the microscope. In this way, a number of cases can be compared and the true pathologic change worked out, as there is generally more than the actual morbid change in the histology required to account for death in some of these cases.

Now, what is the change in the kidney that we find described by some writers as nuclear masses? There certainly are nuclear masses, but if we make a careful examination we shall find that these nuclear masses are made up of leukocytes.

What has happened is this: In scarlet-fever we have a poison. How it is generated we do not know; but it produces the exanthem with which we are all familiar. This toxin has to run its course, and then has to be eliminated from the body mainly by the kidneys. If this toxin has not been modified in any way by treatment, it will, as it passes through the kidneys, possess such irritative powers that it will cause a reaction of the tissues in the kidneys, and scarlatinal nephritis will ensue.

A microscopical examination of well-stained sections will show the whole process, as there are always some parts where the irritative action has not advanced far and has not been intense, and we are able to see that we have a simple old-fashioned case of reaction of living tissue to a substance that is able to cause an irritation. In other words, we have all the conditions of an inflammatory focus. The toxin in the blood, as it passes through the blood-vessels of the kidneys on its way to the hilum and ureters is able to set up a reaction of the tissues surrounding the blood-vessels. You can also make out where stasis has been produced, in fact if you put a section of the kidney under the microscope and bring one of these inflammatory foci into the field, while under another microscope with the same magnifying power you put a section which contains an inflammatory focus from any other part of the human body, you could not tell which was which. They are both examples of simple inflammation.

The Best Treatment

A case of this kind is best treated by rest in bed at once, dry caps over the loins and a saline laxative in the morning. Also bland liquids to drink. Most of these cases of simple inflammation can be well treated if these points are attended to firmly and kindly; rest in bed, dilute the blood with cooling drinks, keep the bowels open, and keep the body cool by sponging—the latter is generally better than a warm bath, as it

can be given often, parts of the body can be sponged at a time, and the whole body need not be exposed. When the fever runs high, give the defervescent compound, if the patient is strong, or dosimetric trinity, if he is weak and run down. Give a dose frequently to effect. If a case is watched, on these lines and is carefully handled there need not be any untoward results.

Dealing With Microbic Infection

But in some cases we have another element to deal with and that is microbic infection, which unfortunately occurs only too frequently. All the symptoms are intensified, and here the question of using a serum arises. The most frequent infection is by a streptococcus, and some men certainly seem to get good results by the use of an antistreptococcus serum. This question of the use of a serum must be left to the physician and the individual case.

I think the majority of general practitioners do not quite realize how very easy it is for a human being to become infected by some microorganism, and that, if this takes place and the resisting power of the individual or of some of his tissues is lowered, we have the condition of the chain which gives way at its weakest link.

We must remember that every time we inhale the surrounding air we are taking in whatever that air may contain besides the oxygen which, by the law of the diffusion of gases, passes from the terminal acinus (the expanded end of the bronchiole) into the blood which is circulating through a plexus of capillary blood-vessels on the outside of the wall of the acinus. The structure of our breathing apparatus is arranged for this purpose, that is, for the interchange of oxygen and carbonic acid. We must remember, however, that with the column of air that we breathe into our lungs we also take in whatever minute particles there may be suspended in that column of air. In the acinus (the terminal of the bronchiole) there is always a certain amount of residual air, that is, the whole of the air is not expelled from the bronchiole at each expiration.

Now, if we take, for example, a particle of carbon that is floating about in the air and we breathe it into the lungs during respiration, it passes on into the residual air and would remain there but that there is a route by which it can go farther. The acinus, or expanded end of the bronchiole, is made up of flat cells set edge to edge and cemented together by the cement substance which unites all cells in the body. On the outside of this sac there is a network of capillary blood-vessels and the interspaces of this network are filled with lymph.

Now, the lymphatic circulation is not a closed system, but is always from the periphery toward the center. The particle of carbon which we left in the residual air has to pass through the wall of the acinus and then into the lymph stream, which carries it to the thoracic duct and into the blood circulation. To get out of the acinus and into the lymph stream, it passes through one of the foramina in the ball of the acinus called "pseudostomata," or false openings. If we substitute a microorganism for the carbon particle we have been using as an illustration, we can easily see how the most deadly microbe can pass directly from the surrounding atmosphere into any part of our body with the circulating blood. If all microorganisms were as deadly as certain armchair theorists would make them, there would not be a living soul on this earth within forty-eight hours.

Different Forms of Nephritis

With regard to the different forms of nephritis, the classification I have adopted seems to me to be clear, practical, and based on actual conditions.

1. Acute diffuse nephritis. Termination, death or recovery.

2. Acute parenchymatous nephritis. Termination, recovery, or passes into the following:

3. Chronic parenchymatous nephritis. Termination, recovery, with portions of the cortex changed by the formation of fibrous tissue and the kidney damaged to the extent of this change.

4. Chronic interstitial. Is chronic from the beginning, ending in the granular kidney, or true Bright's disease. To induce

this condition, something sets up a chronic irritation of the connective tissues and causes to grow and form new connective tissue. This acts as does all connective tissue formed under abnormal influence. It contracts, and by its contraction it destroys the tissues which are involved. This is the gouty form, and the others which have received different names.

The kidneys, after scarlatina, must be constantly watched for some little time, but if the child is given plenty of liquid and the bowels are watched for any sign of constipation, using a saline laxative freely, trouble may be averted. It must further be remembered that no two cases are alike, and each must be treated on its merits, as we are apt to stumble on some idiosyncrasy when we least expect it.

Acute Scarlatinal Nephritis a Simple Inflammation

I think we should fully realize that a nephritis occurring in a case just recovering from scarlet-fever is merely a simple inflammation caused by the reaction of living tissues to an irritant, and treat it as such, always bearing in mind the possibility of an added microbic infection that may entirely alter the condition. In that case, I should certainly try the antistreptococcic serum. Recently I met a friend who has a large practice and he informed me that for some time (three or four years) he has used no other treatment, and his results were above the average.

I hope I have succeeded in making the pathology clear, because it is on the pathology that the treatment must be based.

1. Scarlatinal nephritis is a simple inflammation, and the patient either gets well or dies.

2. Acute parenchymatous nephritis is a catarrhal affection of the secreting tubes, which either disappears or becomes chronic.

3. Chronic interstitial nephritis is one which is chronic from the beginning, where fibrous connective tissue is formed which gradually contracts and destroys the functionating power of the organ.

By taking these three forms of kidney disease, it ought to be a simple matter for the physician to decide to which class the case belongs. There are two acute and one chronic. We may leave out the one chronic form, as it has nothing in common with the other two. It is a most insidious disease, and it is rare to find out when it commenced. It is this form to which so many different names have been applied.

Of the other two forms, it is generally easy to decide if we bear in mind that scarlatinal nephritis is a simple inflammation and that this condition, which is the reaction of a living tissue to an irritant, will in a short time so fill the organ with inflammatory products as to be incompatible with life. This is the time when the alert physician gets busy, as he has little time to get those irritants removed and so enable the organ to carry on its function. Dry-cupping comes in as the first and handiest form of counterirritants; if you have no cupping glass, a wineglass or small whisky-glass will do. Prompt work will often save the patient, and it is the resourceful physician who succeeds in these cases.

Acute parenchymatous nephritis is so well described in most of the good textbooks that a man can in a short time inform himself of the characteristics of this disease. But it is in those books where the compiler has attempted to fit a pathology of which he knows comparatively nothing into a disease of which he is a thorough master clinically that the man seeking for information comes to grief. He cannot make out what this author is driving at, and he throws down the volume in disgust. Now, if he will remember that the function of the kidney is interfered with by the products of inflammation, he must be a duffer if he cannot go to work and counterirritate to such an extent as partially to free the organ and give it a chance to perform its function, at the same time using medicaments to assist those measures. And if he is well versed in the use of the active principles of medicine, he can count on obtaining brilliant results in some apparently hopeless cases.

The Treatment of Cholera

A Review of Past and Present Methods

By WILLIAM F. WAUGH, A. M., M. D., Chicago, Illinois

Senior Dean and Professor of Therapeutics, Bennett Medical College, Chicago, Illinois

THE presence of Asiatic cholera at the New York quarantine, and its general prevalence throughout Italy, whence we are receiving many immigrants, makes it desirable that we should overhaul our means of combating it while as yet we have the time. I shall not take up space with the usual textbooks that stand on every doctor's library shelves, too often compiled by men who have not had the experience of a solitary case, but shall ask what has been done in this malady by the advocates of direct medication.

The research is especially interesting, as Burggraeve's attention was first directed to the use of minute doses and the employment of the alkaloids by the reports of Mandt, a Russian physician, of his experience with nux vomica, rhus and other drugs in small doses in the treatment of cholera. His success won for him the support of the Czar Nicholas, and the jealousy of his confrères, who after the death of his imperial backer drove Mandt out of Russia, and he died broken-hearted in exile.

Beware of instituting momentous reforms in medicine, unless you are the type of man who, knowing you are right, will not let yourself be downed.

The epidemic of the early nineties gave European clinicians abundant opportunities to observe cholera, and put to the practical test the old and new suggestions as to treatment. These were numerous. Garau enumerated the following:

The Multitude of Remedies for Cholera

Absinthe (Ribes), ammonium acetate (Andrel), lead acetate (Dupuytren), nitrous acid (Kennedy, Hope), aloes (Guillemin), ammonia (Levicaire, Kingley), arnica (Ebstein), asafêtida (Fourguemin), cold beer (Baumgaertner), belladonna (Viardin, Halmagrand), bismuth (Serres, Wolowski), camphor (Burggraeve, Andral), sodium carbonate (Blume, Davier, Despine), charcoal (Biett), colocynthin (Colmiak), potassium chlorate (Davier, Despine), vapor douches (Biett, March, Bierstein), cold baths (Recamier, Jadelot), water, 30 to 40 pounds in 24 hours (Peyron), oxygenated water (St. Ange), electricity (Bierkonski, Zugle, Twudal), succinated spirit of ammonia (Brema), ether (Andral), extract of columbo (Hope), internal and topical cold (Salomon, Rigeaux, Mueller), guaco (Pereyra), oil internally and externally (Desavenieres), cajeput oil (Brema), castor oil (Anderson), sulphureted hydrogen (Kungley), ipecac (Guerin, Kuolz), iced lemonade (Dance), ammonia frictions to spine (Gerdy), cantharides-vinegar liniment (Andral), calcined magnesia (Poulain), musk (Burggraeve, Biert, Levestamm), snow (Academy of Paris, Larrey), nux vomica (Prague), opium (Delpech, Geurin, Hubenthal, Gérich Blume, Biett, Levestamm, Rankin, Sachs, Eckstein), oxygen (Coste), Riviere's potion (Gérich), nitrogen protoxide (Lepage, Kungley), hot punch (Magendie), quinine (Sachs, Bonnafoux, Andral), blood-letting (Academy of Paris, Hubenthal, Serres, Wolowski, Broussais), salt internally and intravenously (Latta), strychnine (Jankens, Abeille, Fontaine), aluminum sulphate (Sanson), sodium sulphate (Baudelocque), zinc sulphate (Brauer), tartar emetic (Blume), tincture of rhatany (Rohrer, Dudon), transfusion of blood (Dieffenbach), valerian (Brema), dry-cups (Dance).

These treatments, introduced between 1849 and 1884, resulted in a mortality of 75 to 80 percent in the early days of the epidemic, with 20 to 30 percent toward its end.

During the epidemic of 1884 Burggraeve contributed the results of his studies during five previous epidemics.

The attack of cholera makes its debut with vomiting, cramps and colics, general sideration, lowered circulation and respiration, skin cold and covered with gluy

perspiration, voice broken, eyes sunk in the orbits, black circles around the lids, discolored skin and advancing cyanosis. All these signs show that the cholera toxin is acting at once upon the cerebrospinal nervous system and upon the great sympathetic. The blood ceases to circulate and the body heat concentrates in the interior, hence the inextinguishable thirst that torments the patient, the epigastric heat, the cramps in abdomen and limbs, the increasing paralysis of internal organs, and the suspension of hematosis, that is, of the interchange of oxygen and carbonic acid.

In all the necropsic signs one can not fail to recognize spasmodic asphyxia.

There are degrees: choleras humid and choleras dry, foudroyant and oscillant forms, the character depending upon the intensity of the attack and the resistance of the individual.

Prophylaxis has for its object prevention of the functional troubles that precede cholera, i. e., the abdominal derangements, loss of appetite, pasty mouth, bilious diarrhea, with lassitude, vertigo and headache.

When cholera finally appears the nerve symptoms are quickly carried to the highest point, such as cramps, intestinal colics, precordial anxiety, and dejections, by vomiting and purging, of rice-water consistence.

Heat leaves the extremities, the tongue is cold, icy; the pulse falls and becomes filiform, the secretions are suppressed.

Analyzing these troubles, we have: (1) Those of innervation; (2) those of respiration; (3) those of exhalation and secretion.

Of the first, the nerve lesions are determinant. They proceed from the ganglionic nervous system or the great sympathetic, extending to the cerebrospinal system, as shown by muscular cramps, anxiety and moral malaise.

The respiratory symptoms consist in cessation of the action of the great sympathetic upon the lungs. The vagi do not influence the chemical action but rather the sensibility and contractility of the bronchi. In dealing with choleraics, one is struck by the coldness of the expired air, the general cold, and the nonconversion of venous blood into arterial. The characteristic respiratory phenomena of cholera therefore indicates paresis of the great sympathetic nerve, or ganglionic sedation. Camphor raises the bodily heat, stimulates the mental faculties, and renders the pulse full. The effect is rapid when administered by the rectum. Perspiration and the secretions are activated.

The Prophylaxis of Cholera

For the antecedent diarrhea Burggraeve commenced with saline laxative, which he did not look upon as coming under the rule of shunning purgatives. He sought to produce a simple intestinal lavage to remove fermentable materials. This should be done by a dose given in early morning. At each meal he advised quassin and sodium arsenate to promote the flow of bile, which in cholera was suspended, as well as the secretion of urine, leaving the blood thick and incapable of circulating properly. The saline refreshed the blood and favored oxidation. The latter also may be favored by the use of oxygenated water as a drink.

Between meals he advised monobromated camphor, two or three centigrams; or camphor and musk; at bedtime three granules each of his triad, aconitine, digitalin and strychnine arsenate, to increase the vitality and free the secretions. These are the preventives to be used during cholera prevalence.

Burggraeve justly attributed prophylactic power to the morning dose of saline laxative, washing out the bowel, increasing the appetite, rendering the secretions more saline, the muscles firmer, the blood circulating more easily and the congestive vertigo to which he was subject disappearing. These results were due to the exosmosis occasioned, ridding the blood of toxins and preventing the absorption of fecal material. Taken while still in bed, the saline acts on the bowels; if the user takes exercise just after swallowing the dose it will act as a diuretic and diaphoretic.

Practising in malarial localities, Burggraeve sought to prevent cholera by giving quinine sulphate, two grains morning and evening. Naturally, to one meeting malaria at every turn the thoughts become

tinctured with quinine, and it seems always indicated. For enteralgias and abdominal pains Burggraeve gave quinine hydroferrocyanide.

Burggraeve observed that metal workers were usually immune against cholera. The metallic oxides and acids cure intermittent neuroses rebellious to cinchona. Copper, iron and arsenic are especially effective. The economy seems to receive from these an unaccustomed power of resistance. Workers in copper were not affected by cholera in Ghent or in the Russian mines. Burg confirmed this by extended researches, and advised wearing over the stomach a plate of copper and steel, which left on the skin stains of oxide. Dumont found that of 150 persons wearing these plates during a cholera epidemic not one was attacked with the slightest abdominal disorder. All "tasted copper."

Treatment of the Attack

The treatment is that of the drowned. The patient is placed naked on a bed before an open fire, the windows open widely, and wrapped in the upper sheet wet with strong salt brine, well wrung out. Energetic frictions are to be made with camphor in alcoholic or oil solution.

For the vomiting and cramps he gave strychnine, Gram 0.0005; monobromated camphor, 0.002; cicutine, 0.002; if necessary adding atropine or hyoscyamine, Gram. 0.00025. Gelseminine is indicated, as in tetanus, cholera being in effect an asphyxic tetanus. To calm the thirst, bits of ice are placed in the mouth at intervals. By these means the cold stage is abridged.

As heat returns to the periphery, the attention and energy should be redoubled, for infrequently these have to deal with a true typhoid state, especially if stimulants have been abused in the cold period. Jacquemont saw the vomiting and diarrhea increase with every dose of his hot potion. Since the first epidemic of cholera, the essential oils have been abused, to the point of burning the gastric integument. Every druggist has his anticholera mixture, which he prescribes without the doctor.

Reaction is sustained by the alkaloidal excitomotors, for the internal organs are still asphyxiated by the suspension of hematosis. External measures should be applied to the chest, frictions, dry-cups, electricity; the strychnine being continued. As the peripheric circulation is established, and the axillary temperature reaches 102° to 104° F., add veratrine, cicutine, digitalin, a granule of each every quarter-hour; then every half-hour, then every hour as the reaction is more declared by the restoration of the pulse and respiration and the color of the skin.

The hot stage ending, that of sweating begins. It is dangerous to allow the patient to exhaust himself in transpiration. Besides the risk of chilling, it is profoundly debilitant. Replace the bedding with dry linen, cover lightly and give a little bouillon, hot aromatic wine or punch. Because these cases are neglected many choleraics perish when they are believed safe. Sleep soon comes, and is restorative; it should not be disturbed unless it be considered too prolonged.

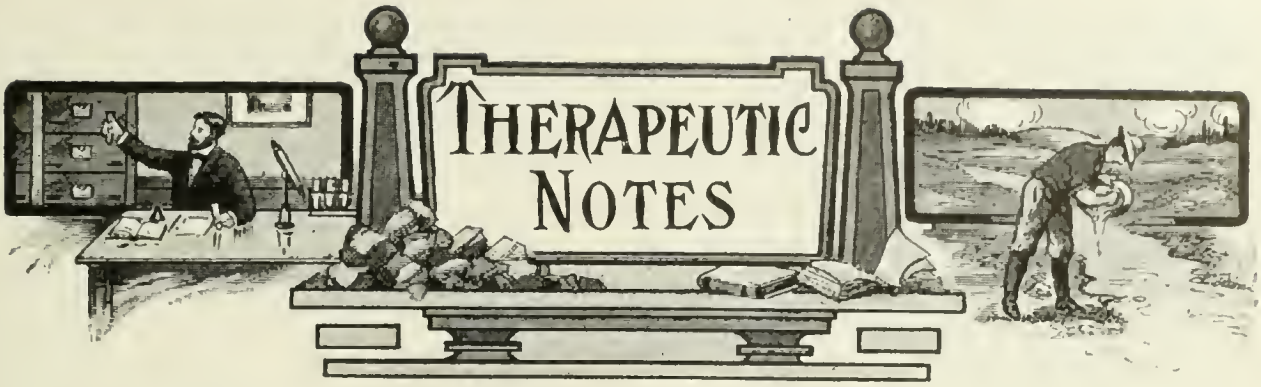
The choleraic paroxysm passed, its return may be prevented by quinine, the arsenate or hydroferrocyanide, three or four granules every half hour, gradually diminished as the danger subsides. This is rendered advisable by the affinity between cholera and intermittents, existing in the low countries, where Burggraeve practised. It must be understood, though, that massive doses of quinine are to be shunned.

The External Treatment of Cholera

The external treatment of cholera has for its object to provoke reaction and bring about remissions, during which periods febrifuges may be administered with at least some hope of success.

Artificial heat and hydrotherapy are useful to sustain or arouse vitality. Durant applied to the spine a thick strip of flannel wet with turpentine, over which he passed a very hot iron—an effectual means of arousing consciousness and the vital forces. This was followed by hot affusions. The degree of heat that can be borne in this condition is remarkable. Petit employed this method, applying ammonia and turpentine, and repeating until blisters formed.

(*To be continued*)



PLEASE CONTRIBUTE

You are invited to contribute items for this department. Write down on a postcard one of the "kinks" which have given you practical help and send it to us, and "we'll do the rest." Let's crowd all the helpfulness we can into these pages of "Therapeutic Notes."

TO PRESERVE RUBBER INSTRUMENTS

Talj, investigating the various means suggested for preserving rubber instruments, finds the best to be exposure to the vapor of ammonium carbonate.—*The Military Surgeon.*

THE USE OF SACCHARIN IN FOOD

The use of saccharin in food has been forbidden by the Secretary of Agriculture, this ruling taking effect on July 1, 1911. The Referee Board appointed by the Secretary declares that the continued use of saccharin for a long time in quantities over three-tenths of a Gram per day is liable to impair digestion.

MAGNESIUM SULPHATE IN THE TREATMENT OF DYSENTERY

Dr. A. A. Barge in *The Therapeutic Digest* says that on the first appearance of mucus and blood in the stools the patient should be put to bed and given an exclusively liquid diet. An enema of a quart of warm water that has been boiled, to which two heaping tablespoonsful of magnesium sulphate have been added, should be administered at the beginning of treatment, this being introduced through the hard rubber tip of the fountain syringe never with the colon tube. This enema should be repeated every four hours until the passages are free from blood and mucus and the patient free from pain. In addition, the patient should be given magnesium sulphate internally every two hours until the acuteness of the symptoms has subsided. Dr. Barge usually adds a little deoderized tincture of opium to the magnesium sulphate, taken by the mouth.

HEROIC TREATMENT

Beverly Robinson states that a man is free from hay-fever while in England. He does not tell us which of the two evils the patient preferred.

P. S. English exchanges are requested *not* to copy.

SUGAR AND HEALTH

The increasing consumption of sugar, according to *American Medicine* (April, 1910), is at last receiving the attention of physiologists in many parts of the world, and the general opinion seems to be favorable to this change in habits, because it is economical to relieve the digestive apparatus of part of its labor of digesting starches. The change has been so recent that there is not yet time to tell what harm, if any, can result.

The possible atrophy of the tissues which produce the starch-hydrating enzymes need not worry us. Indeed, it would not be disastrous if we entirely lost our power to digest starch, for sugar production is quickly becoming amply sufficient to replace the starches, though, of course, such a change in physique is not a matter for

a day, but a slow change requiring millenniums.

Nevertheless, there is a danger which has already been recognized. When starches are eaten, the sugar is slowly produced, and always exists in very weak solutions; but when sugar is eaten, particularly the absorbable varieties, it is apt to be in strong solution that is more or less harmful.

Very strong solutions of all the sugars seem to be used in nature, as well as in our kitchens, as antiseptics, to preserve other foods, for they are very injurious to living tissue. It is now said that sugar-eaters suffer unduly from inflammations of the intestinal tract and liver. We have called attention to this fact before, and it seems important enough to repeat, now that sugar diet is receiving high praise, which will doubtless lead many to indulge unduly.

HEXAMETHYLENAMIN FOR COLDS IN THE HEAD

Dr. Austin Miller, in *The Journal of the American Medical Association*, June 10, 1911, says that, in view of the reported excretion of hexamethylenamin in the saliva and by the middle-ear and bronchial mucous membrane, he has been giving it for the past year in the treatment of common colds, and finds that this agent acts promptly and efficiently. The irritating watery secretion stops; the fever, aching, and malaise of influenza ceases, and the threatening disease is generally averted.

The hexamethylenamin should be administered at the earliest possible moment; that is, just as soon as the nose begins to feel stuffy or the discomfort begins. If used later, the results are less gratifying, possibly on account of the presence of the mixed infection during this stage.

At the onset of a cold, Dr. Miller used 15 grains of hexamethylenamin four times in the twenty-four hours. Copious water drinking is encouraged, which lessens the possibility of bladder irritation, this being the only ill effect of the drug which has been noticed. He thinks that as a cure for colds it may prove as great a boon as it has been shown to be as a urinary antiseptic.

Hexamethylenamin is the same as hexamethylenetetramine, which is a condensation product of formaldehyde and ammonia i. e., $(CH_2)_6 N_4$. It is known by various other names, urotropin representing one of the purest grades of the preparation.

THE DIGESTIBILITY OF CHEESE

The United States Department of Agriculture has been investigating cheese, to find out whether it is digestible or not. There has been a popular impression, pretty wide-spread, that it is not readily digested, and is likely to induce intestinal disturbances. Experimenting with a number of young men in good health upon a diet of American factory, or cream, cheese cured for different lengths of time and eaten with bread or fruit in quantities varying from one-third to one-half pound per day, it was found that on an average more than 95 percent of the fat and more than 95 percent of the protein of the cheese was digested, and over 90 percent of the energy available for the body. Thus, cheese was found to be just as digestible as meat. Furthermore, the subjects did not tire of the diet, and in no case was constipation, indigestion or any other symptom of physiological disturbance noted. Similar results were obtained with cottage cheese, which, when made from skimmed milk and enriched with cream, was pronounced "a cheap, digestible and nutritious food."

COLORLESS IODINE OF NO VALUE AS A SKIN DISINFECTANT

Willmott Evans (cited in *Merck's Reports*, 1911, July), in an article on the value of iodine as a disinfectant of the skin before operations, states that, in all the various external applications of iodine, attempts are often made to employ one of the "colorless iodines," and points out the fact that so-called colorless iodine has very little antiseptic power.

Iodine solution is "decolorized" in several ways: by the use of any of the alkalis, by carbolic acid, by sodium thiosulphate, and by sodium sulphite, but in every one of

these methods the iodine enters into combination and thereby loses all or the greater part of the antiseptic power for which it is chiefly employed. For instance, if potassium hydroxide is used, potassium iodide and potassium iodate are formed, no free iodine being left; and it need not be said that neither the iodide nor the iodate of potassium has any great antiseptic power. Therefore, these "colorless iodines" are useless for sterilizing the skin, and, in fact, they are of very little value for any purpose.

PRURITUS AND TABES

A writer in *The Lancet* calls attention to the relation between pruritus and tabes. Milian found such a connection in six out of 25 cases. In these the pruritus was localized, lasted years with exacerbations, and was always an early symptom, and in incomplete cases, never in ataxia. Others found the pruritus in advanced ataxic cases.

The writer in *The Lancet* stops too soon. He fails to appreciate that the connection is due to the fact that tabes and pruritus are both caused by fecal retention and decomposition; the ataxia by the action of fecal toxins upon the delicate structures of the spinal cord, the pruritus by the local irritation of skin or anus by these same toxins undergoing elimination or coming in contact with the perineal tissues.

TREATING SNAKE-BITES

Dr. I. C. White, of Smithville, West Virginia, writes that when he is called to see snake bite, he scarifies the orifice made by each tooth or fang, and then applies to the wound a small piece of cotton saturated with ammonia water. This is renewed every few seconds, being freshly saturated with the solution every time. Internally, he administers a mixture containing tincture nux vomica, tincture iron chloride, and water.

Under this treatment his patients have invariably recovered very quickly. One boy who had been bitten five times by a copperhead snake, went to sleep in less than one hour after he received the treatment.

Dr. White says that he finds many persons who have been given whisky after being bitten, who are so drunk when they are first seen by the doctor that they cannot speak nor hardly swallow. In these cases he administers ammonia water in 15-drop doses by the mouth, letting them inhale some of the same substance. This will sober the patient very quickly.

COLCHICUM AND GOUT

The experimental pharmacologists have recently arrived at the conclusion (after elaborate experiments on dogs and other animals which never have gout) that colchicum acts only as an intestinal irritant and, therefore, can not influence the course of gout. This view received an effective kibosh from the pen and mouth of Prof. Hare, who in his address before the Ohio State Medical Society, this year, said:

"With the statement that 'colchicum does not cure gout' it seems hardly worth while to deal. We may not know *how* it cures gout, because the pathologist at the present time can not tell us what gout is, but there are thousands of medical men, and thousands of laymen as well, who know that colchicum *does* cure gout, or to speak more correctly, relieves an attack of gout, although it may not permanently correct the metabolic disorder."

To this we might add that there are thousands of physicians who can testify with equal certainty concerning the efficiency of the alkaloid of colchicum, cochicine, in the relief of gout and the "gouty" conditions.

CALOMEL AS A CHOLAGOG

Our fathers looked upon calomel as our best cholagog, and when they wanted something that would powerfully "stir the liver" they turned naturally to this remedy, as the best one at their disposal. During the last few decades our pharmacologists have told us that the drug did not have this action upon the liver. It is, therefore, of interest to note that there is a tendency to return to the *essence* of the old view. In a recent address, in which he refers to certain

well-known experiments, Prof. H. A. Hare said:

"There is no question whatever that in these experiments the administration of calomel has not caused an increased flow of bile through the fistula, but this does not prove that calomel does not cause an increased flow of bile into the intestines. It may not stimulate the liver, but may have some action on the gall-bladder whereby that viscus is emptied. But whatever may be the *modus operandi*, it may be asserted that if he will take a saline purge, thereby sweeping the contents of the duodenum out of the bowel, estimate the quantity of bile passed, and some days later take a full dose of calomel, or blue mass, and estimate the quantity of bile passed, he will find that, no matter however clever his mental deductions may seem to be, his biliary secretions will be increased more by the calomel than by the saline. After five or six copious biliary dejections have occurred the lower end of his alimentary canal will convince his brain that it is in error when it thinks that calomel does not increase the flow of bile."

THE FLEXNER SERUM FOR MENINGITIS

It is said that the Flexner serum for the treatment of cerebrospinal meningitis is not yielding the results anticipated for it by its discoverer. Flexner claimed cures in 75 percent of cases. In spite of this fact, the reports of the New York Health Department show that since 1907, when the Flexner serum was introduced, the percentage of fatalities has increased from 82.1 percent to 97.3 percent. The value of this substance is still *sub judice*.

TO PROTECT FROM MOSQUITOES

In a Bulletin issued by the United States Department of Agriculture, it is said that the most effective mixture was that sent the Department by C. A. Nash, of New York. It was as follows:

Oil of citronella	oz. 1
Spirit of camphor	oz. 1
Oil of cedar	oz. ½

A few drops of this mixture on a bath towel hung over the head of the bed will keep the common house mosquitoes away. When they are very abundant and persistent, a few drops may be rubbed on the hands and face. Towards morning, it may lose its efficiency, and as the mosquito often bites worse about daylight, when the individual sleeps soundest, it is well to renew the application during the night.

THE RELIEF OF GALLSTONE COLIC

Dr. Samuel Floersheim of New York points out in *The Medical Council*, July 1911, the danger of overdosing with morphine in seeking to get relief from the suffering of gallstone colic, the danger being that a very large dose may be administered just before passing of the stone, after which the sedative would not only be unnecessary but dangerous.

May we suggest that a much safer combination for the relief of this condition is that of hyoscine, morphine and cactin, which alleviates the pain, in a dosage which is relatively far more safe than morphine alone, or morphine and atropine combined. In the mild cases, the "antispasmodic triad" of strychnine arsenate, hyoscyamine and atropine is effective.

A SECRET OF SICKROOM SUCCESS

"My successful medication," says Dr. Robert Gray in *The Therapeutic Record*, "is due entirely to my knowledge of chemistry and pharmacy and the employment of none but the highest grade substances, direct from the manufacturers, dispensed myself, and personally administered in the treatment of desperate cases; the only method to acquire the utmost knowledge of the physiologic limit of recognized chemicals. This is the source of my faith in my treatment; the faith patient and family have in me and my medication, and the mysterious influence that suggestion exercises, do the beautiful work I see accomplished in the sickroom, where there is not one favorable shade of prognosis."

Nervous Dyspepsia

III

MILK in its natural state and eggs not absolutely fresh are quite often contraindicated in the diet of patients suffering from atonic dyspepsia because of the flatulence which they provoke. I have often seen this in the victims of an ovolactic diet, as well as among those who take mineral waters as their exclusive drink. I counsel regular repasts well chewed.

"We have thirty-two teeth," said Andrew Clark, "which is the reason why every mouthful should get thirty-two bites with the teeth. I also advise that the interval between the three meals should be five hours. As drink I permit the atonic patient, if he or she is not too nervous, a quart of old red Bordeaux thinned with three quarts of weak hot tea. Hot drinks stimulate the act of digestion, diminish the sense of heaviness, favor the activity of the ferments and the molecular dissociation of the fats.

The bread should be either stale or toasted or replaced with zwieback (bread sliced and browned in the oven). There is no harm in introducing in small quantities the following articles into the diet of the atonic individual: lean oysters, smoked ham, lemons, old wine, vinegar, parsley, thyme, laurel, truffles, cinnamon, vanilla, cloves, and diffusable antispasmodics and stimulants. As soups the best would be fat-free bouillon as a base, into which chopped vegetables may be introduced, then thickened with rice flour or barley or dough. Meats should be tender and well cooked; gelatinous meats, brains, calves' sweetbreads, young turkey, fresh partridge, quail and lark may make up the menu, without fat or piquant sauces, and without ragouts or fried things. All vegetables should be mashed with butter. The most digestible vegetables are salsify, chicory, crosnes, [*crosne*, Japanese labiate plant with an edible tuber. It is a winter vegetable.—"Dictionnaire Petit Larousse"], cardoons, carrots, peas, greens, and lentils.

He that eats and swallows quickly digests slowly. The tachyphage becomes a dyspeptic. But, on the other hand, slow eating (bradyphagia) is quite often the provoking cause of habitual air swallowing (aerophagy). The longer one masticates, the greater chance he has of swallowing air. *In medio virtus*. In almost all nervous dyspeptics there is need of reeducating the appetite and the digestion. These patients have the deplorable habit of depriving themselves gradually of all aliments, which they regard one after another with suspicion, as hurting them. The anorexia is at first voluntary and elective but gets to be quite morbid and general. Among these dreaders of food (sitiophobics) we find those of perverted taste, who are a prey of irrational desires (pica, malacia) and the syrmiacs [Greek *syrmos*, vomiting, and syrmaie, an Egyptian emetopurgative made of the juice of a certain radish mixed with salt water.—GLEANER], who like the old Romans make themselves vomit whenever they feel the least heaviness after a meal. All cases of that condition are quite amenable to psychotherapy.

Gastralgia has often occurred in consequence of some mental and moral shock preoccupying the mind. In the young, gastralgia is often the sign of anemia. It

follows readily the grip and prolonged wetnursing of infants. Here too is the neuropsychic treatment of far greater importance than eupeptic medicaments and restricted diet. To sum up the matter, we should say that we have here a hyperesthesia of the solar plexus. This diagnosis is frequently impossible to be made except by exclusion, i. e., when we have ascertained that the pains in the walls of the stomach and the intermittent cramps, which come more frequently than usual while it is empty, do not depend on the presence of either a round ulcer, nor on a stenosis of the pylorus, nor on hyperchlorhydric troubles, nor on any lesion of the liver, nor on a congestion of the appendix.

At the time of a painful attack I counsel giving simultaneously a granule of Gregory's salt, a granule of atropine, and one of cannabin, which medication should be repeated in case of persistance of the pain. If the attacks continue we order tepid douches, with interrupted jet, on the spine, during ten or fifteen days, one minute every day. If this fails then a fly blister at the epigastrium, left on for four days, constitutes a most favorable revulsive. Internally the medicament that served best was sodium chloride in solution of 10 percent, two or three tablespoonfuls in twenty-four hours. I explain the sedative power of this salt by its topical action on the gastric mucosa, which must be affected at times with herpetic epithelial desquamation.

Errors of diet are most harmful for gastralgic patients, yet we may permit them a sufficiently large diet on condition that they exclude all crude and irritating aliments, such as acids, spices, condiments and stimulants, articles rich in tannin (as tea or red wines), ice, beer of poor quality (very rich in dextrin), and medicaments that are hurtful to the gastric mucosa, those namely that are mostly of the purgative kind. The gastralgic patients may have mucilaginous pottages, fresh eggs, gelatinous meats, and thickened barley gruels as drink. We must not forget that this evil is almost always a reflex or sympathetic. Thus it is that we must consequently closely observe and treat all ptoses, all hernias, hemorrhoids and uterine deviations. We have to counsel warm clothing, and females should replace their rigid corsets with girdle corsets of elastic tissue.

Gastralgia requires habitual general treatment of neuroarthritism, living in the open air, exemption from fatigue, especially of the mundane kind, exemption from intellectual work and overwork, giving up the use of tobacco and of aperients, and all drinks after meals. Presclerotic persons (inclined to sclerosis) and persons of an exaggerated disposition (*préscléreux et les hypertendus*) are subject to a variety of gastralgia which is accompanied by cardiac arrhythmia and at times by tachycardia. In these cases use should be made of the high-frequency current and the current and sparks applied at the epigastrium locally by the aid of Oudin's resonator.

Under a pretext of debility, and during an attack of sudden boulimic appetite, the gastralgic patient may be led to use and too often abuse strong wines, prepared meats, highly seasoned dishes and condiments. Then it does not take long for him to superadd to his purely nervous malady a dyspeptic gastropathia of a more or less grave character. The sedative granules of codeine, cocaine, cannabin and hyoscyamine, moderately employed, act very well against the false hunger and against the impulsion to use excitants. [These granules are also valuable for dipsomaniacs.] If there is also an associated chloranemia we should add quinine hydroferrocyanide, which is perhaps the only iron preparation that is tolerated by gastralgic patients, but we must always begin with small doses. [We must warn against the use of cocaine internally. This is a dangerous drug, lending itself too readily to habit formation.—Ed.]

In young hysteric females gastralgia is altogether a special disease. It readily becomes complicated with a rebellious anorexia and an uncontrollable emesis. As soon as the diagnosis is made certain the physician should begin a course of therapeutic intimidation; he should speak loudly of direct cauterization, of electric shocks, of esophageal sounds and bougies, and even of surgical operations. If these

moral means fail then he should not hesitate to prescribe absolute isolation, permitting neither the receiving of letters nor visitors. This mental diet becomes indispensably necessary in order to make effective the useful suggestions and to reeducate the unsteady will. In recent times I have thus intervened in saving from death some young hysterical patients who, after adopting a diet of inanition, have brought on vomiting which eventuated in progressive cachexia. Such are those hysterical gastralgias which are engendered by those lean and long silhouettic females, by that absurd fashion which is reigning at the present time.

We ought not to believe that all vomiting of hysterical females is without any organic trouble. A certain number of these cases is connected with stomach lesions, especially when there is gastrorrhagia, even menstrual, for there can be no bleeding unless there be erosion, though there may be no ulcer. Usually it is pain felt on palpation of the epigastrium which betokens the development of the hematemesis in the paroxysms of the nervous patients. The pure nervous attacks are moreover recognizable by their sudden invasions succeeding some emotion and they are more frequent when the stomach is empty. They terminate with a convulsive attack, more or less characteristic, in which suffocation and repeated sighing and air-swallowing and abundance of tears are predominating features.—Dr. E. Monin in *La Dosimetrie*, June, 1911.

THE ALKALOIDS

The discovery of the alkaloids, said Dr. Debout, of the last century, was one of the most important ones made at the commencement of that century, and it saved the medicinal flora from the shipwreck in which modern skepticism threatened to engulf it. The energetic action of most of these organic bases no longer made it possible to contest the properties of a goodly number of medicinal plants whose therapeautic value had been called in doubt.

Moreover the fixity of the composition of these new products entitled them to the same rank with the most active and constant principles in the mineral kingdom. It is enough to name in this respect quinine, digitalin, aconitine and hyoscyamine to make evident at once that the vegetable principles can furnish practical medicine with resources not less energetic than iron, mercury and arsenic.—*Repertoir Universel de Médécine Dosimetrique*, Vol. XII, p. 191, 1884.

[The Gleaner places this paragraph here, at this late date, merely as an item for the medical historian, who will find further valuable material in the article by Dr. Forran, from which this paragraph is taken.]

THE SPREAD OF CHOLERA

At a recent meeting of the French Academy of Medicine, M. Chantemesse reported, for himself and for M. Borel, concerning the part which emigration plays in cholera. In the year 1910 cholera passed from east to west, and the winter of that year extinguished its focuses in Russia, in East Prussia, in three Ottoman localities, in Hungary and in Italy. Have the local struggling efforts put forth in all these focal centers been sufficient to protect us? We do not dare to hope that they have.

The inquiry instituted by M. Chantemesse yields some facts which show the formidable part which latent microbism and emigration play in the transportation of cholera.

Chantemesse cites many instances, and concludes as follows: The preceding facts establish examples of latent microbism: Individuals have left cholera-infected centers after 25 or 30 days, all their baggage has been disinfected, and sometimes several times, they themselves have been visited two or three times by physicians, and they have presented definitely most serious guarantees, from the point of view of maritime sanitary police, such as are defined in the international texts, and yet the infection of these individuals nevertheless withstands time and is not at all destroyed by the disinfection to which they have been subjected; despite all the medical examinations, it shows itself after all the precautions which have been exercised.

What protection against danger have those five days of observation imposed by the last international sanitary conference upon persons who come from countries contaminated with cholera?

If it is desired to make war against the transport of cholera by attacking latent microbism we cannot obtain that result to a greater or lesser extent except by severe regulations and active surveillance over emigration.

The preceding international sanitary conferences directed all their efforts to the danger of Mussulman pilgrimages. The next conference should occupy itself with the new facts growing out of the ever-increasing extent of emigration, for inquiries show that for the exporting and spread of cholera the pilgrimage of misery is as dangerous as the one of religion.—*Gazette des Hopitaux*, 1911, pp. 226-227.

[These facts are in accord with the discovery, in New York, of a number of "cholera-carriers"—individuals who harbor the germs of the disease in their bowels, thus disseminating the disease itself, though they are themselves entirely well. How many of these "carriers" come in as immigrants is a vital problem, which our sanitarians are now trying to solve.—Ed.]

THE PROTECTIVE EFFECT OF THE AIR

Our earth is hit every day, according to average calculation, by about four hundred millions of meteoric stones. Those rattling missiles from the universe about us would have a terrible effect were it not for the protective action of the atmosphere. But the friction of the meteors when passing through the air that covers the earth puts the smallest of them into a glowing heat, which burns them up and scatters them as dust before they arrive at our earth. Only few meteors reach the earth and these with greatly checked speed. The rain drops and the hailstones would bombard us with the speed and weight of the discharges from a gun were it not for the protection of the air. The same moderating protective effect is experienced by us in the change of temperature from day to night.

On the moon, which has no atmosphere surrounding it, the temperature changes between day and night, i. e., between its radiation [How I wish I were allowed to write "beradiate," like the German *bestrahlen!*—Gleaner] by the sun in the daytime and the absence of radiation at night are, according to calculation, from 100° C. above the freezing point to 200° C. below zero (212° F. to 148° F.), while with us on earth the change amounts to only a few degrees. This moderation is effected by the atmosphere which protects the earth.—*Der Geisteskampf der Gegenwart*, July, 1911, p. 270.

TEMPERATURE DIFFERENCES IN THE AXILLAE OF THE TUBERCULOUS

Von Casali states, in *Gazzeta Ospedale*, (1910, 1041), that the temperature in the axilla on the affected side of tuberculous patients is almost constantly higher, the plus amounting to some tenths of a degree (centigrade) as compared with the healthy side. The difference is most pronounced in acute cases. Exceptionally an augmentation of temperature is met with in the axilla of the healthy side. The explanation of this latter phenomenon demands further study.—*Wien. Med. Wochenschr.*, 1911.

SKIN DISEASES TREATED WITH ETHEREAL EXTRACT OF MALE FERN

For many years Laner has been treating acute and chronic eczema, acne, sycosis and other skin diseases by brushing them over with ethereal extract of male fern exclusively. He has obtained some brilliant results with this remedy and in a short time. For acute cases the extract is mixed with two parts of ethereal tincture of valerian, and for subacute and chronic cases one or one and a half parts of the valerian is used. The remedy is applied at night and the affected place is washed and cleansed in the morning with soap and water and covered with a lead-glycerin ointment. In acute eczema, poultices are applied two or three days before the brushing with the male fern is begun. Crusts must always first be removed.—*Pharmaz. Zentralhalle*, 1911, p. 42.

Prof. Ellingwood Comments on Lobelia and Macrotys

I HAVE taken great pleasure in reading your August issue; at the same time I observed some queries to which I should like to reply.

Concerning the hypodermic treatment of asthma, your readers are probably not familiar with the fact that we are now investigating the hypodermic use of lobelia, a remedy which we find of immediate benefit in the treatment of every form of asthma, except that form alone which is dependent upon disorders of the heart. All other varieties are benefited by this treatment, and the one which is manifested by spasmodic paroxysms is relieved immediately. Fluid preparations of lobelia are nearly all irritating when used hypodermically. To meet the demand, Lloyd Brothers have prepared a hypodermic lobelia, free from alcohol, which produces no abscess and only a minimum of irritation.

In the perhaps 2000 cases in which lobelia has been so used, it has produced nausea in less than one percent of the cases, and when given in even as high as 2-dram doses, no toxic effects are observed. On the other hand, from 10 to 30 drops given hypodermically before or during a paroxysm will produce magical results in spasmodic asthma.

The remedy is in no way a depressant and can be given to the weakest person, while exerting a peculiar toning, upbuilding and a general restorative influence that is shown by no other stimulant. I say this advisedly. So administered for asthma, the remedy overcomes the immediate distress, rapidly lengthens the period between the paroxysms, abridges the severity of the paroxysms, and in many cases, if continued for sufficiently long period, of one injection every one, two or three days, will result in a cure.

The same agent is directly adapted to the treatment of whooping-cough. Those who have used it, give from 5 to 10 drops hypodermically, just before a paroxysm, and succeed many times in aborting the paroxysms, and in producing, if given in the evening, a quiet, refreshing, prolonged sleep that prevents the return of the paroxysms during the night. It is my opinion that with children a small dose will be as efficacious as a large dose, and will be found very satisfactory when properly adjusted. I have but few reports on the action of lobelia in this disease, but all observers speak of it very hopefully.

Another excellent addition to the treatment of whooping-cough is the application of caraway oil, rubbed once or twice during twenty-four hours over the pit of the stomach. In this locality it gives better results than if applied to the chest. I have some excellent results from the use of this external application alone, in relieving the severity of the cough, especially when begun early and persisted in.

In the treatment of chorea, I would advise the readers of this journal to prescribe macrotys [Here, and succeeding, Dr. Ellingwood refers to the eclectic "specific" fluid extract.–Ed.], in the proportion of 1 dram in 4 ounces of water, to a child of twelve years, giving a teaspoonful every

two hours. If there be nervous tension, especially with any tendency to cerebral engorgement, and contracted pupils, give 1-2 to 1 drop of gelsemium with each dose. If a constant nerve sedative seems to be required, give 4 or 5 drops of scutellaria with each dose. Every physician understands that rest, isolation, and full-nourishing, well-digested food are also required. With a proper attention to these conditions, the patient in nearly all the cases can be cured. This course, in the hands of my readers, has been very successful.

Dr. Gregory asks for experiences in the treatment of tetanus with gelsemium. I have a record of something like a score of cases in which that agent has been used successfully. There are two conditions that must always be borne in mind in the treatment of tetanus. The first is the neutralization or destruction of the free toxins in the system, and, second, the antagonizing of the condition of spasm, by a sufficiently powerful agent, which will also restore the efficiency and normal function of every organ at the same time, while in no way undermining the vital forces. This indication is fully met by the use of a powerful antiseptic and an equally active antispasmodic given together. For this purpose one of our physicians employed a mixture of 20 drops of 95-percent carbolic acid, 20 drops of specific gelsemium, and 20 drops of water, injected into the deep muscular structures every four or six hours. He treated twelve cases, eight of which were very severe, and cured every one.

Others have used echinacea internally and applied directly to the wound, after the wound has been freely opened, and have administered from 20 to 40 minims of gelsemium every three, four or six hours hypodermically, with equally good results. Others, again, in two or three cases only reported, have used lobelia alone with good results; but those who have used lobelia and gelsemium together have obtained better results than when using lobelia alone.

In 1884 I recommended to the faculty of the Chicago Veterinary College the use of gelsemium in tetanus in horses, because they were then having very many cases and losing more than 80 percent of them. I recently received word from the secretary that since that time they have employed gelsemium and lobelia, reducing the mortality to 60 percent. I did not realize then that an antitoxic remedy was necessary to be used with the antispasmodic. This I now consider should always be remembered.

FINLEY ELLINGWOOD,
Editor *Ellingwood's Therapeutist.*
Chicago, Ill.

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[Most of our readers will remember the paper by Dr. E. Jentzsch on the hypodermic use of lobelia in diphtheria, which appeared in CLINICAL MEDICINE in April, 1909 (page 453). This, we believe, was the first time that it was proposed to administer the remedy in this way. Since then a lot of experimental work has been done and it has been shown that results can be obtained, when it is introduced into the body subcutaneously, that seem impossible when it is taken by the mouth.

Lobelia has been used hypodermatically for a variety of conditions with gratifying results, the principal objection, however, being the pain which it caused. This was sometimes intense. Lloyd's new preparation is undoubtedly excellent. A number of our subscribers have used the concentration, lobelin, hypodermatically with good results, and one of our friends has been experimenting for several months with the pure alkaloid, lobeline. The results obtained with the latter have been brilliant, and before long we hope to give them to our readers.

One of the striking things about the hypodermatic use of lobelia is the absence of nausea, to which Dr. Ellingwood calls attention. Moreover, as the doctor says, it does not seem to be depressant. Dr. Jentzsch called it a "vegetable antitoxin." This suggestion that it may prove curative in asthma is of intense interest and should be followed up and verified, if possible, by members of the "family."

We are sure that every reader of CLINICAL MEDICINE will appreciate Dr. Ellingwood's therapeutic suggestions, and ask him to give us more of them. He has given us some hints which we shall many of us try out,

though we probably shall take the license of the active-principle enthusiast and use lobeline, macrotin and gelseminine.—Ed.]

FURTHER DISCUSSION ON DR. ROBINSON'S PAPERS

As we announced last month, we have received many letters of comment upon Dr. Robinson's remarkable paper, "The Limitation of Offspring." A number of these have already been printed, and several more we are reproducing in this issue. We regret that lack of space makes it impossible to publish more of the articles sent us, and that we are compelled to abbreviate some of those which we are printing.

The discussion follows:

THE MORAL ASPECT OF LIMITATION

Dr. Robinson's article (June and July issues) is certainly a very vigorous and forceful one, and appears to be written with sincerity by a man who evidently thinks himself qualified to speak with authority regarding all matters of human conduct, human responsibility and human welfare.

It is to be regretted that Dr. Robinson does not manifest a better spirit in the presentation of his paper. Near the beginning, he speaks courteously concerning a diversity of opinions that "cannot be helped," and suggests that "it is better so—provided discussion be honest and sincere and not unnecessarily acrimonious." But he violates his own injunction even before he pronounces it, and also here and there throughout his article, going out of his way to sneer at the views of a large number of people, in and out of the profession, regarding matters that do not have to do directly with the question under discussion. He refers to the "free-will fetish", the "childish belief in our descent from Adam," and gives an absurd definition of faith which he seems to endorse. A true scientific philanthropist, in discussing a great question in which all are interested, ought to proceed with manly courtesy.

Dr. Robinson presents some strong arguments in support of his views, but the same kind of arguments would apply with almost equal validity in favor of suicide under certain circumstances or to the destruction of idiot infants and the permanently and wretchedly insane. Perhaps Dr. Robinson would so apply them. He speaks of "my remedies for the uplift and regeneration of humanity," and the advocacy of murder and suicide may be among the number. This is the more probable from his laudatory reference to Ingersoll, whose teachings on the subject of suicide are well known.

With a naiveté that is somewhat amusing in so scholarly a man, Dr. Robinson says, "I have considered every possible objection—whether I have answered every point satisfactorily is a different question, but I have considered them all."

At the risk of being counted one of the "peculiar people" to whom he later refers, and therefore under his anathema, I would suggest an aspect of the question which he has not discussed, and that is the moral aspect. It seems hardly possible that he considers it but a part of the "theological argument," which he mentions but to throw aside with utter contempt. Many who care little for theology have regard for moral standards, as established by the consensus of human opinion or otherwise, and think that the moral aspects of this question are the most important of all and entitled to the fullest consideration.

Though Dr. Robinson regards illicit sexual intercourse as a venial offense, he counts abortion to be a crime, chiefly, it would appear, because of the dangers to the life of the mother. Are the violations of the rights of the unborn child to be considered at all in this connection? If so, can it be said in every case just when conception takes place? May it not in some instances be coincident with coitus? Even if it is always some time later, is not the act of bringing together the elements of life such a direct invitation to a new life that all interference with such a prospective new life would constitute an immorality, if not a crime?

Without cavil, it may properly be said that the moral aspects of this question, if not the crux of the whole matter, at least deserve careful consideration from any honest and fair-minded man who presumes to take up its discussion.

A. M. Stocking.

Good Hope, Ill.

FROM A WOMAN WITH SEVEN CHILDREN —A DOCTOR'S WIFE

I have read Dr. William J. Robinson's article on "The Limitation of Offspring" with much interest, and I admire him because he has a deep sympathy for suffering women. Yet I, the mother of seven children, disagree with him on some points.

I know what it is to suffer all of the things which he describes, and I feel grateful that one man understands what women have to go through—yet I feel that I have been fully paid for my suffering. Yet I know what it is to be scorned and taunted by neighbors, for more than two-thirds of the people with whom I am acquainted practise "limitation of offspring."

It is perhaps true that we cannot care for a large family as well as we can for a small one, but, nevertheless, I feel that the backbone of the nation is in these large families. Here they learn to make sacrifices one for another while they are young, and if we mothers lay the foundations well we can be sure that our children will become well-educated men and women, even if our means are very limited. When there are only two children they both get the things they want, and they don't know what it is to sacrifice. If we cannot make sacrifices enough to bring up our families how can we expect the coming generation to be ready, if the need comes, to sacrifice themselves for our country or for one another?

Yes, child-bearing pulls down many a high-strung girl, but if she has real character she will come up again. If she is a brave, true woman she will not look upon her work as drudgery. I am not a strong woman, but with my children's help I do my own work, and sometimes the laundry work for the family, and I find time to read. I read much more than I did when I had only one or two children.

I, for one, know that my children have not been a curse to me, neither mentally nor physically.

I am thirty years old and look as well and feel as strong as I did ten years ago.

A Mother.

——, Kansas.

[We withhold this lady's name at her request.—Ed.]

FROM ANOTHER DOCTOR'S WIFE

I have read Dr. Robinson's "Limitation of Offspring" with great interest, and I am sorry to see from the comments that the majority don't agree with him. Dr. Robinson's remedy may or may not be right. I don't presume to say, but I know something is wrong. The maternal instinct is as strong with our women as it has ever been. We love our children. We want them, but we must remember that each generation of civilization and unnatural living breeds a more complex and highly strung race of women who are physically unable to bear the number of children that the primitive races do, and our women should be protected.

And speaking of educating the people. Can't something be done about the senseless little smattering of physiology that is taught our children in the schools? They are religiously shown a diagram of their digestive organs, their lungs and hearts, but what boy or girl ever saw a diagram of his or her generative organs? I know a girl who, until she was almost grown, thought she menstruated through her urethra. No wonder she had leucorrhea. She had never seen a fountain-syringe. Our girls are taught that it is an offense against society not to use the tooth-brush regularly, but how many are taught the importance of washing out the vagina?

A Doctor's Wife.

——, Kentucky.

THE LIMITATION OF OFFSPRING—A PROTEST FROM THE SOUTH

All men are influenced by their environment. Dr. Robinson is decidedly so. Men living in New York City seem to think that that city is the United States, and the remainder of the country a hazy fringe round about. Japan has a population of fifty millions of people, but the state of Mississippi, with an equal area, has two millions. Does Mississippi want limitation of offspring? Many western states have a still less dense population. Do they want their population arrested?

Six weeks ago, Waco, Texas, received a carload of babies from New York. When the train reached Houston, Texas, the women of that city tried to mob the train in order to get the babies. In a few weeks more they received a carload for themselves. Does Texas want limitation of offspring?

Our political economists tell us that the United States can support a population of six hundred millions of people. With Alaska and Canada, one billion people could live in peace and plenty north of the Rio Grande. Does this vast country want limitation of offspring? No, a thousand times, no!

Last winter every night at one o'clock two thousand men formed a bread-line at the Bowery Mission in New York to get a cup of coffee and a piece of bread. (God pity their poor women!) At the same time the South and the Southwest were begging for labor and offering inducements to immigrants. Those men could be happy with their wives and children in the South. Must this entire vast country suffer for the conditions prevailing in a few congested areas?

Dr. Robinson says that the limitation of offspring by a knowledge of how to prevent conception would not increase illegal cohabitation. No man was ever more mistaken. We in the South believe that we have the most virtuous women on the continent. They have an inborn modesty, a shrinking from vulgarity, a sweetness of character that is proverbial. But let me tell you, brother, that, if our women, as well as those of other parts of the country, had a knowledge of some easy and positive way of preventing conception, in a few generations chastity would be as rare as it is now common.

A girl is as conscious of her sex as a boy of his, and when enthused by a God-given passion, and under the gentle persuasion of someone whom she thinks she loves, if all restraint were removed, this girl would resist no more than do our boys today when they are subjected to a similar temptation. No, Dr. Robinson is unmindful of the fact that our young women are suppressing a volcano of animal passion; that we are but little above the brute creation in such things. The only restraints I know of are the religion of Jesus Christ and the fear of conception.

We of the stronger sex should throw all safeguards possible around our women, guard, guide and direct them, going on as we are now trying to go, to a higher and better life.

C. S. H.

——, Mississippi.

LIMIT REPRODUCTION OF THE UNFIT—BUT NOT OF THE FIT

Dr. Robinson's article in limiting offspring will doubtless receive criticism from abler pens than mine, but in response to your invitation I will submit my views.

Passing over the slurs upon ideas held sacred, I am sure, by a majority of your careful readers, I will speak only of the subject-matter of his paper. I must dissent from the proposition that large families are necessarily the result of excessive child-bearing. All pregnancies of the unfit are excessive, whether the parents be poor or rich. Cases have occurred in my practice where I felt it my duty to caution against what I considered excessive child-bearing, not because the parents were poor, but because of unfitness.

I cannot agree with the doctor that the large family of the poor is "one of the greatest causes of low wages, poverty, ignorance, idleness, sickness, crime, and death." So sweeping a statement needs proof, to say the least. Neither can I admit that the first two or three children of normal parents are dearer than those that follow. I am number eleven in my father's family, yet I never had reason to believe that I was unwelcome, albeit my father was far from being rich.

In my forty odd years of practice, more prospective mothers of the well-to-do and the socalled rich have appealed to me for fetus murdering than of the socalled poor, and in the majority of cases the plea was made in the first and second pregnancies.

In my first school on the Iowa frontier (before taking up medicine), over fifty years ago, I had pupils from three families of twelve and thirteen children each. These people were not rich, by any means, and all lived in houses of four rooms or less.

Our honored Secretary of Agriculture was the oldest son in one of these families, and not one of the thirty-seven children of these three families was ever found among the ignorant, idle or criminal.

I firmly believe that the one-child proposition is a great mistake. Everybody knows that such a child is more likely to be selfish and uncontrolled then where association with brothers and sisters has begotten forbearance and mutual helpfulness. Show me one large family where the parents, poor though they be, consider their children a misfortune, and against it I will show you six childless couples deploring the fact that in early married life conception was prevented.

You ask, Mr. Editor, whether the Doctor has found the solution of a great social problem. For myself, I must say, emphatically, NO!

For every crime the direct result of excessive childbearing, you will find a score and more the direct result of intemperance. Take away the saloon with the shiftlessness, idleness, crime, and poverty engendered by it, and you will not need to teach the public how to prevent conception.

Teach our young people the value of economy, of chastity and purity of character, and there will be little need of instruction about curtailing their progeny. There need be little fear that the children of well-mated, temperate, healthy parents will ever become a menace to society because of their number. Let honor, not pity, nor blame, be given to the mother who gives to the world the normal half-dozen or yet more children, and does her best to make them worthy citizens, even though she may be handicapped by what the world calls poverty. By and by those same children will rise up to call her blessed.

C. W. Cooper.

Campbell, Calif.

Mrs. T. A. Stevens, Caney, Kansas
Mother of seven children, five daughters and two sons; 50 years old and not one gray hair

WRONG AND DANGEROUS

My observation and personal experience, after thirty years devoted to the practice of medicine, tells me that Dr. Robinson's thinking and teaching are not only wrong but so dangerous that there are no English words capable of expressing it.

The Five Daughters of Dr. T. A. Stevens, Caney, Kansas
All of them graduated from the Caney High School, some of them graduated from higher schools; four of them happily married and prosperous. They can all play the piano; cook, and milk a cow; drive an automobile and set a hen. The picture being old, the millinery is of the "brand of 1908." The ladies apologize!

To show you that I have "practised what I preach," I am enclosing the picture of my wife and her five daughters. We have seven children, five daughters and two sons. The older son, thirty years old, is a prosperous and capable business man; the younger son, fourteen years old, is a fine, healthy boy in high school. All of the five girls are high-school graduates. Each can play the piano, cook, milk a cow, drive an automobile and set a hen. Four of them are happily married and prosperous. The wife and mother is fifty years old, in good health and happy—with not a white hair!

All of our children, married and single, live in Caney. John D. Rockefeller and Andrew Carnegie cannot enjoy their millions more than we do our seven children.

THOS. A. STEVENS.

Caney, Kan.

ROBINSON IS RIGHT

George Bancroft, the historian, said Wendel Phillips was "right, but fifty years ahead of his time." This is just what I thought of Dr. Robinson, after reading his address on "The Limitation of Offspring" printed in the June and July numbers of THE AMERICAN JOURNAL OF CLINICAL MEDICINE. It is a most masterly and truthful presentation of a most important subject, and must appeal with tremendous force to every sympathetic doctor. But to preach such doctrine now to the great mass of mankind would be like casting pearls before swine. I have tried it for over forty years and know whereof I speak.

The world never accomplishes but one great reform at a time, and the economic movement is the one now most pressing for consideration in all socalled civilized nations. Our cannibalistic, capitalistic, anarchy-feeding system must give way to the more sane and sensible cooperative commonwealth, in which all will have a chance to work and to get the full product of their labor (instead of one-fifth as it is now), before the masses will have the time and incentive to study this question.

With the incoming of socialism, to which Dr. Robinson evidently adheres, the superstitious part of religion, i. e., much of creedism and churchiety, will give place to the more dynamic principle of meliorism. With religion based on the great doctrine of the brotherhood of man and the fatherhood of God, and economics based on the impregnable science of biology, as taught in evolution, the science of eugenics will be studied in our schools. Then will heaven really begin on earth, and in the family relation, primarily, life will be worth living.

S. J. BROWNING.

Fort Worth, Tex.

THE DANGER OF PROMISCUITY

Continence in adolescence is essential to racial vigor. We are decrying early mating among ourselves, and legislating for other races. The family is the basis of higher civilization; promiscuity is not desirable. The most advanced races are the tangible proof of these dicta. By much travail and experimentation we have arrived at a fairly true monogamy and sex continence, with late mating.

Whatever be claimed to the contrary, a general knowledge of limitation of offspring will surely lead to early excesses, promiscuity, and destruction of family life, with its development of the community instinct. Woman, who, as child-bearer, has benefited most by monogamy, will be the loser (already is) from loosening of the family ties. The only argument in favor of "limitation" knowledge is, that it may lessen abortion and infanticide. As to some of the evils to be "cured", a far better and more effective way is sterilizing potential fathers and mothers when indicated.

A. VOGELER.

Chicago, Ill.

ENDORSES DR. ROBINSON'S CONCLUSIONS

I appreciate fully that I am a very small toad in a very large puddle, but I am consoled by the fact that I have company and that very few are large enough to make so large a splash on so important a subject as Dr. Robinson.

While not fully accepting all of his reasoning, I endorse his ultimate conclusions. The subject is vital. I meet it every day, you meet it every day, and every other practitioner of medicine meets it every day. Then it must be up to us to solve it, and we alone can solve it and solve it correctly.

The comments in the August number of CLINICAL MEDICINE on Dr. Robinson's paper are red hot with criticism and endorsement. To those who stand aghast with the thought that the pages of the journal should be polluted by the ungloved handling of such a subject I wish to state a universally accepted fact, and ask a question. A normal married woman living with a normal husband will conceive and give birth to a child at least every two years, if no steps are taken to prevent conception. Now, then, my dear brothers, how many of the families in your acquaintance keep up this standard. Have *you*, my brother, lived up to it? I know your answer will be negative. Then why condemn and preach against your own practice? Get in line, my brother; this question is going on to solution whether you go with it or not.

We may not know where we are going, but we are on the way.

E. H.

——, Iowa.

OVERPRODUCTION IN A SOUTHERN MILL TOWN

Yes, sir, keep my journal coming. I read it from cover to cover and get more genuine good out of it than from any magazine I take. The *Critic and Guide* is next, as I agree with Dr. Robinson in his fight for "limited reproduction."

A word! I have been practising medicine for twenty-five years. My work is general, but naturally I have a large obstetric practice. I go into the homes of all kinds of people, high and low, rich and poor, doing work at four cotton mills and some other manufacturing plants, seeing life coming and going, and on all sides, and as a result I believe that educating the poor people along this line would be a great blessing.

I am no abortionist. Far from it. I note that some of the articles in the last number are treating the subject from that viewpoint. This is not treating Dr. Robinson's contention fairly. He does not argue to stop that which is already started, but to avoid starting.

I see the deplorable effects of those large families every day among the very poor, counting my

obstetric cases over one thousand. At the cotton mills I see couples who married young, with from eight to ten half-clothed, poorly fed, dirty children, depending on the underpaid father's wages, with a little help from possibly one or two of the older children who have arrived at an age when they can work some. The poor mother (from having married so young) is liable to be the mother of three or four more unwelcome children before her sexual life ends. From the present tendency this condition will grow worse because so many of those poor people (children you may say) marry in their teens..

All married people want children. If anything is deplorable to me and a cause for sympathy, it is the married couple who for four six, or eight years have been looking for and patiently expecting the coming into their pleasant home of a little one, while their neighbors on all sides are happy recipients of numbers of them.

Here are the two extremes: The family with no children, and the one with ten or twelve. An old adage presents itself to my mind: "Enough is enough even if it is of the very best." Who will not admit that the "happy medium" of only four of five children would not be the best, and that these would stand a better chance to get an education and to fight with an equal chance the battles of life?

I think the greater sin presents itself at the other end of this overproductive condition, for we see large families of those poor people ruthlessly and heedlessly ushering into this world children whom they well know they cannot properly raise, clothe and educate. What is this but wilfully making mental dwarfs, inebriates and criminals? What a responsibility falls on us parents.

G. E. Flowers.

Granite Falls, N. C.

THE DUTY OF RACE IMPROVEMENT

In looking over the articles under the caption of the "Limitation of Offspring—a Discussion," I have been very much disappointed to find so little that can truly be termed a discussion of Dr. Robinson's fine paper. His ideas have been termed a "dangerous doctrine." Why? Are we as physicians not the conservators of human life and happiness? Is it not our province to do and to say that which will the most perfectly protect human interests, physical and moral?

All things change, and these changes are, to a certain degree, the products of the human mind, working together with the fixed laws of God. He made the world and pronounced it good, but sin came in and played havoc with it, and the result is that unless some agency stands guard over things, they go to the bad.

Take the vegetable world, and here we find tares and weeds. If these are not eradicated or kept in abeyance they will destroy the more valuable life.

In the animal kingdom we find that, unless they are destroyed, the more pernicious will multiply, and destroy the individuals of a more useful character. What is the remedy? The law of control—the elimination of the offensive or harmful, and the cherishing and protecting of the lives which are most useful, perfect and desirable. This is, indeed, man's mission on earth.

The horticulturalist is constantly adding to the comfort and welfare of the community by a better knowledge of the laws of reproduction. The stockman is continually studying the best means for the production of more perfect animals. Yet humanity is allowed to go on haphazard, in the same old way, with only a meager attempt at betterment, hiding behind excuses instead of delving into the unsavory truths which are choking the moral lives out of us, and increasing the tares of selfishness, hatred and lust in our midst.

We must have a greater regard for quality as against quantity, a more perfect parent to produce a more perfect child. How can we do this if we fail to do that which is right, and allow wrong to dominate? We and our neighbors must suffer the consequences.

J. E. M.

——, Missouri.

On another page of this number we print an article on "Abortion" by Dr. Robinson, which takes up the relation between limitation of offspring and the problem of abortion. It carries the discussion a step farther, and the short articles which precede are all pertinent.

When we printed the paper by Dr. Christian Johnson in the April, 1910, number of Clinical Medicine, and that by Dr. J. Augustin Flynn, in the same issue, we thought we had closed the discussion of the abortion question, so far as these pages are concerned. But the subject is one in which the profession is interested, and from time to time it is sure to come again into the foreground. It is our policy to give every man who thinks strongly, and expresses himself with force and conviction upon any subject which vitally concerns our profession, a chance to be heard. It is for this reason that we have opened our pages to the papers of Dr. W. J. Robinson. Let it not be assumed, because we have printed these papers, that we are in agreement with the author, that we indorse his ideas, accept his conclusions or would urge the acceptance of his proposed reforms. We do not; indeed, we disagree with him radically on many points. This we do believe, however, that progress can only come through open, frank and absolutely free discussion.

Dr. Robinson's papers are the product of the earnest and conscientious convictions of an intense mind. He believes with every atom of his strong personality that the remedy he offers carries with it the possibility of simply inestimable good for mankind and womankind.

There are many who will believe (as, frankly, the writer does) that Dr. Robin-

son's remedy will fail, because it does not take into account the economic conditions which lie at the bottom, and that it is dangerous, since the widespread dissemination of information of the character advised may lead to promiscuous sex relations, both inside and outside of the marital state, among women as well as among men.

After all, what is the imperative need for interference, on our part, with the course of nature? From all over the civilized world come reports of shrinking birth-rates. France now hardly holds its own in population; the German birth-rate has fallen for the last three decades; the same is true in England; while in America our old New England families, of the pure Puritan stock, are slowly but certainly disappearing. The means of preventing conception are known well enough—too well by the many in well-to-do circumstances, whose desire to escape parenthood is prompted by selfish motives, which find their basis in artificial and essentially debasing social standards. And the poor are poor, not because of their children, but because of an economic problem which is right now pressing society for solution. *They* are not begging for this knowledge; indeed, the average European immigrant looks upon children as the greatest blessing; from them, when the evil days and old age come, they look for love and support.

This is as the writer sees it. He may be wrong—he often is—and if he is wrong he is willing to be set right. It is for this reason that he is glad to study the opinions of others, on both sides. Let us all do this, without bitterness, without questioning one another's motives, or belittling the abilities of those with whom we disagree.

No, I cannot agree with Dr. Robinson, but I am glad, as doubtless most of the readers of this journal are glad, to know his opinions, to weigh his arguments.

THE PAPAYA AND ITS CONGENERS

In one of your issues, March, I think, my good friend Dr. Perry of Minnesota has a most interesting article on "Surging Through Africa," in which he says:

"This experience brought to my notice several of the native remedies, among which was the papaw poultice for chronic ulcers. This use of the papaw fruit (papaya) was reported to me in European and American medical journals, and later, when the inspissated juice of the papaw was exploited commercially as papoid, caroid, papain, etc., my little surgical contribution to its surgical uses was not overlooked by the boosters."

The carica papaya belongs to the order Papayaceæ [This term has been abandoned, the genera included under it having been more recently transferred by botanists to the natural order, Passifloraceæ.—Ed.] which includes two genera, both native to tropical America. It is quite distinct from the paw-paw or less properly papaw—of the United States (asimina triloba, order Anonaceæ), a tree found in regions along the Ohio River and the southern and western states. The papaya (pronounced pa-pa-ya—*a* as in papa, accent on second syllable) is a native of Brazil, and may now be found in all tropical countries, including Hawaii. It is sometimes called "melon-tree." Its flowers are generally diecious but sometimes hermaphrodite. The flowers are unisexual. In planting seed, one must take the usual chances of the human family as to sex. A few "male" freaks bear fruit, a longer fruit, with pendant swinging stems—but the quality is good. [One of the Editors, during a sojourn on the Isle of Pines, Cuba, was shown several male trees that he was assured by good Americans had been converted, under their supervision, by natives, into regular bearers. The "trick" he was told by his friends (also by natives) consists, either in piercing the trunk of the young tree, at right angles, with a long, broad blade, or else to sever completely the tap root, with a machete, about 15 or 18 inches below the surfaces. If true—as it seems—no explanation can be found, except that nutrition is in some way affected. —Ed.] There are some twenty species, differing slightly in flower and fruit, but exhibiting common characteristics.

The papaya tree grows to be about twenty feet in height, sometimes five feet higher, and, in Japanese gardens, is often dwarfed, so the fruit may be more easily

reached. The fruit, some ten inches long, in size and shape like a melon, and generally corrugated at the stem end is, when ripe, of a yellow color. It is very wholesome, palatable, and easily digested, being eaten raw, either plain or with pepper and salt, as musk-melons are, or boiled, baked, and fried, particularly in the unripe state. It is also made into pies and custards—the pies much resembling our own pumpkin pies—and covered over with slices of Chinese oranges, or the juice of a lemon is squeezed over them.

The papaw seeds are anthelmintic, but in Hawaii are not used as a vermifuge, although they are fed to chickens to keep them in "good condition." Hogs fatten quickly on papayas, and large groves of these trees are kept for that purpose. As they bear all the year around and fall when ripe, all the farmer has to do is to put his seeds in, wait a few months, till the trees are grown up, then turn his hogs into the grove and let them get fat. Horses, cattle, dogs, cats, and chickens are very fond of the fruit. So are the mynah birds lovers of this useful fruit, and many a papaya is destroyed by these imported scavengers.

The milky juice of the fruit contains a digestive enzyme (usually found only in animal tissues), this principle constituting the well-known vegetable digestant known in commerce by various names, many copyrighted, such as papoid, caroid, papain, papayotin. The value of such a preparation may be tested by anyone. The pure milky juice, it is said, will even dissolve diphtheritic membrane. Aside from macerating between the leaves tough meat (and some of our Hawaiian beef is very tough), to make it tender, I do not know that the digestive action of the papaya is otherwise made use of in Hawaii.

The tree grows quickly, shooting up like Jonah's gourd in a night. As it grows, the leaves fall off, excepting at the top, leaving scars all around the trunk. Generally the body is free from branches, like a palm, but occasionally there may be seen a tree with odd, twisted limbs as distorted as any cripple. The trunk is usually straight when young, with a fine bunch of handsome leaves at the top; but as the tree ages, there is a tendency for the trunk to come to a point, which after five or six years ends the usefulness of the tree.

To look at the trunk you would say that it was solid wood, but such is not the case, for it is soft and pulpy all the way through, and with two good strokes of the ax you can fell the largest tree. Underneath each leaf, attached close to the trunk, hangs the fruit in great abundance, but often so high up that you cannot reach it. Climbing the tree is out of the question, and placing a ladder against the brittle trunk is risky, for not infrequently these snap under the strain of heavy fruit or of ladders placed against them.

The fruit is very soft and tender, and if you shake one of the "squashes" down you may be obliged to take it up with a spoon. A resident of the district here puts up a sort of papaya jam that is very palatable and is sold to some extent. For some time a man in Honolulu manufactured a mixture of poi (taro, arum esculentum) and papaya, which was largely advertised in the States, but it did not sell to any extent. Perhaps the most palatable cooked preparation, suitable for exporting, is the papaya puff, a delicious biscuit, or cracker, but these have a local reputation only.

The papaw, belonging to the nearly related order of Passifloraceæ, is quite a distinct tree, being small, with obovate-lanceolate leaves, and characteristic blossoms. The fruit is about three inches long, having pulpy seeds like the rest of the species.

The purple-fruited water-lemon (passiflora edulis), which grows wild in Hawaii and is highly esteemed as a luscious fruit, is a member of this family. Also the grenadilla (passiflora quadrangularis), and yellow-fruited water-lemon (passiflora laurigloria). The latter are edible, and grow freely in this latitude. Five or six other varieties are cultivated for their blossoms, among these the well-known passion-flower vines so common in tropical countries.

The best classification of our flora I have seen is that by Dr. Hillebrandt, a botanist and physician who lived for many years in Hawaii and whose work, "The Hawaiian Flora," is a classic. The work describes

844 species of flowering plants and 155 cryptogams; comprising a total of 1000 species and 400 genera. These, to a surprising degree, are peculiar to the locality. The different conditions of climate and altitude here tend to differentiate plant-life, and render it more complex, changing race habits, and sooner or later, physical features.

E. S. Goodhue.

The Doctorage, Kailua, Hawaii.

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[The papaw has special interest to the physician because of the presence in its juice (to the extent of about one percent) of an active principle, papayotin. This is an extremely active digestive ferment, resembling pepsin in its power to convert proteids into peptones, but differing from the latter and superior to it in this respect—that its digestive action takes place both in an alkaline and acid medium and is not arrested by the presence of antiseptic substances, such as boric acid, phenol, and the like. According to Tavera, "it should be given after meals, carefully and properly diluted, in order that its action may not be exerted upon the gastric mucous membrane itself. Its use is contraindicated in gastric ulcer."

Readers of Clinical Medicine are generally familiar with papayotin, but we doubt if many use it extensively—as much as they really should, considering the wide range of digestive troubles in which it is really one of the best remedies at our disposal.—Ed.]

MEASLES COMPLICATED BY PNEUMONIA AND FOLLOWED BY TYPHOID FEVER

I was recently called to see a man, aged 29, who had double pneumonia as a complication of measles. Before resolution had completed, he showed unmistakable signs of typhoid fever, having previously had nosebleed. The abdominal rash became plainly visible, and diarrhea was severe, with the passages foul and frequent. The temperature ran up to as high as 104.4° F., and within a short time delirium was active, the patient attempting to jump out of the window.

Here certainly was "a condition, not a theory," and to "get busy" was imperative. Ice-caps were kept on the head continuously; he was sponged every two hours with 2 quarts of hot water containing 1 ounce of vinegar. He was kept covered with only a sheet.

Calomel in divided doses, followed by a laxative saline were administered. Then 2 intestinal-antispetic tablets were given every two hours with 5 drops of "echitone." The last two remedies were continued in these doses until the temperature and pulse came down to a reasonable point, when the former was given one tablet every two hours, the echitone being continued in the original dosage. For defervescence I gave veratrine, straight, one granule hourly for a day, then less frequently. Nuclein in 2-drop tablets was given until the temperature became normal, when the triple arsenates with nuclein were substituted, one dose every two hours.

Throughout the duration of the case I gave an abundance of cold water that had previously been boiled; also buttermilk of excellent quality, all he would take, every two hours. This I continued until convalescence was established, when he was taking 2 quarts of buttermilk within twenty-four hours. I then gradually added junket, custard, and animal broths, and allowed him to chew beefsteak, without swallowing it. Bread and milk followed when the tongue became clean.

The use of sweet milk during any acute abdominal condition does not appeal to me because of the effect of the indigestible caseins, this having a tendency to produce just the condition I am endeavoring to combat. It is liable to produce indigestion, followed by fermentation, then tympanites and intestinal hemorrhage.

The patient's mouth was kept clean by means of a warm solution of boric acid.

He made a complete and uninterrupted recovery.

The points I wish to emphasize are: (1) The necessity of "cleaning out, cleaning up, and keeping clean" the gastro-intestinal canal. (2) Combating the blood dyscrasia. (3) The effect of nuclein, which certainly is an efficient remedy. (4) The

safety in the use of veratrine "to effect." (5) The unique reconstructive action of triple arsenates with nuclein.

I never before had such a complete and rapid recovery from such a condition. I should mention that tympanites was a distressing symptom for a couple of days, when it gradually disappeared.

HORACE R. POWELL.

Poughkeepsie, N. Y.

DEATH FOLLOWING THE USE OF SALVARSAN

I want to ask your opinion concerning a case of syphilis treated with salvarsan. Some months ago I gave a man of 27, suffering from syphilis of two-years' standing, 3.5 Gms. of salvarsan, in the vein of the arm. This was injected at 3 p. m. At 4:30 he began to have involuntary movements of the bowels. At 5:30 and after he vomited three times; was very nervous, but at 10:30 went to sleep, this lasting two hours.

The next day he vomited thirteen times; the kidneys acted twice and the bowels four times. No urine was passed after noon, so I catheterized him at 8 p. m.; no urine in the bladder. I gave him large doses of saline laxative and placed hot-water-bottles about him in the bed. Throughout the day I gave him digitalis, nitroglycerin and strychnine, hypodermically, also brandy by the mouth.

As he complained of nervousness and wanted to sleep I gave him one tablet of hyoscine, morphine and cactin; no effect, so at 11:20 p. m. I gave him half a tablet of H-M-C, pulse being 124. No vomiting or diarrhea. The patient slept a little and gradually stopped breathing, death occurring at 12:30, without recovery of consciousness.

What do you think was the cause of death? Did the hyoscine, morphine, cactin tablet have any influence in bringing on the fatal result?

"SUBSCRIBER."

[For reasons which are quite apparent we withhold the name of the writer of this report. First, we would suggest that the statement of the quantity of salvarsan ("606") used in this case is probably a mistake in writing. If it is not, then there is no wonder death occurred. The dose usually given varies from 0.2 to 0.6 Gm. Probably the doctor gave 0.35 Gm. (3.5 cg.) The symptoms are those of arsenical poisoning. The rapid appearance of diarrhea and vomiting, with dimunition and later suppression of urine, followed by quick and feeble pulse, all point inevitably to this conclusion. Salvarsan is an arsenical preparation, and even though the toxic arsenical symptoms do not generally occur, their possibility can not be excluded. Cushny says that in acute arsenical poisoning death may occur within twenty-four hours, but not infrequently the patient lives from two to four days.

Did the hyoscine-morphine preparation have anything to do with the death? Possibly, though we think not. Personally, we should have hesitated to give the second dose, considering the patient's critical condition, but it seems highly probable to the writer that the patient was already *in articulo mortis* when he received the second injection.

This case again emphasizes the advice we have given before: Leave salvarsan to the specialists. Experience has demonstrated that it is not free from danger, so that anyone who uses it should be thoroughly familiar with its action and a master of the technic of its administration. The idea that "606" cures at a single dose has been given up. Recurrences of syphilitic symptoms have occurred in a fair number of cases in which it has been used, and as Finger points out, it will take ten years to determine the effect of any new drug in this disease.

"I think," says Dr. C. F. Marshall of London, in *The New York Medical Journal*, "it is clear . . . . from these considerations that the original claims for salvarsan have not been substantiated, that there is no evidence to show that it cures syphilis, and that it cannot replace mercury in the treatment of this disease. Salvarsan may cure the symptoms temporarily in certain cases, but it does not cure the disease."

The general practitioner may well go slow with this remedy, relegating the pioneer work with it to men who have facilities for its special study.—Ed.]

THE CLINIC PUBLISHING COMPANY NOW THE ABBOTT PRESS

The name of The Clinic Publishing Company was changed in July to The Abbott Press, by which it will hereafter be known. This change was made because of the incongruity of the old name, which was adopted when The Alkaloidal Clinic was the sole product of this establishment. Within recent years it has grown into a great printing and publishing plant, producing a number of books and magazines, and doing a large quantity of outside printing.

Hereafter, if you desire to communicate with the printing establishment which produces The American Journal of Clinical Medicine, address your communications to The Abbott Press, Ravenswood Station, Chicago.

COMMENT ON DR. EGBERT'S PAPER, "FADS AND FOLLIES"

I have read the lecture on "Fads and Follies" with much interest, as it is a subject to which I have given much thought, and I thoroughly agree with Dr. Egbert in his plea for publicity, not only on medical matters, but pharmaceutical as well.

We can expect nothing from the newspaper press as long as they are drawing such large revenues from patent-medicine ads, or from legislatures as long as bribable or ignorant men are elected. But if one-tenth, and I do not know but I should be safe in saying one hundredth, of the amount spent in foisting nostrums, cure-alls, and infallible remedies for socalled incurable diseases, and the exploitation of the different crude, unscientific, purely-for-money-making "systems" which seem to be springing up like mushrooms in this "free" country, were spent in disseminating truth and facts, it would not be long before public sentiment would be so aroused that medical practice and the use of drugs would be so guarded and restricted that the lives and health of the citizens of this land would be safeguarded to an extent little dreamed of now by the public generally.

But it requires a campaign of publicity; and though the enemy is strongly intrenched, both financially and by long custom, yet the medical and pharmaceutical professions have in their hands the weapons by which they can be utterly routed, if they will only use them. There is not the slightest objection to a *qualified* physician practising homeopathy, osteopathy, Christian science, urinopathy, or any of the other socalled systems, or to the druggist putting up proprietary remedies; but if neither are admitted to practise until they are qualified and the proper restrictions are placed on individual greed, quackery and the secret-medicine business will soon disappear.

It seems to me that true physicians and pharmacists will have to unite to rescue themselves from conditions which have become well-nigh intolerable to both, and from which the state loses largely both in number of citizens and their efficiency, which also means large financial loss.

But our sovereigns must be educated. Public opinion can be depended upon to do the right thing when the public once understands; and as we do not govern by the one-man power, the masses must be enlightened. Why not enlist such an agency as *The Saturday Evening Post?* That journal seems to have the idea that doing the right thing is best financially, and with a few independents like that on our side, we should soon win.

Edward F. Baker.

Newark, N. J.

BRYONIA IN PLEURISY AND IN INFLAMMATION OF MUCOUS AND SEROUS MEMBRANES

Have any of the readers of Clinical Medicine ever had personally or heard of a case of pleurisy, skilfully treated with bryonia or bryonin, where any serious effusion occurred? Those of us who have always been giving bryonia for pleurisy

are so used to having the attack subside so promptly under our treatment that we are not apt to remember that hydrothorax and pyothorax are very common conditions as is the case when less efficient remedies are employed.

Bryonia is such a powerful remedy to abort inflammations of serous and mucous membranes that every doctor ought to know its action. The patients all make perfect recoveries.

Wm. M. Gregory.

Berea, O.

AT BAY

"I've given him pills," said old Doc Squills,
"And he's taken a gross, I guess;
And jalap, and rhubarb, and ipecac—
But it's puzzlin', I confess.
I've given him wine and syrup of pine
And iron and calomel;
And he takes it mild as a little child;
But he don't seem to get well!

"I blistered his back at the first attack
And I greased his chest with lard;
And I looked at his tongue and sounded his lung
When I found him breathin' hard.
If I've written him one he's had a ton
Of prescriptions, I think.
He's had everything of a drug, by jing!
That a mortal can eat or drink.

"I've given him more than an even score
Of things for his appetite,
And some of 'em may be wrong; but, say!
Some one of 'em must be right!
Why, a fellow ought, with the stuff he's got,
Be able to eat a horse;
But his stomach's weak and his manner's meek,
And drugs don't have no force.

"I've given him a dose that'll fetch nigh close
Most any known disease;
It'll knock, by jing! most anything
From a bilious spell to fleas;
For it may be his stomach, and maybe not,
And it may be his spleen or gall;
So I just wrote in some medicine
That'd ought to hit 'em all!

"He's had morphine when his pain was keen
And plenty of aconite;
And digitalis whenever 'twas seen
That his heart wasn't workin' right.
He's had his skin full of medicine
Sence at least six weeks ago,
Swallered and hypo'd and some rubbed in;
But he gets well awful slow!

"So I'm just about clean plumb run out
Of drugs and of ideas, too;
And everything's been done, by jing!
That a mortal man can do.
And I can not tell if he's goin' to get well,
If he's goin' to live or die;
But when it's done I don't want none
To say Doc Squills didn't try!"

J. W. Foley.

The preceding is copied from *The Saturday Evening Post*. Our poetical editor ventures the following comment:

So he took him to see the laboratoree
Of a scientific Doc,
Who found the man full of indican
With skatol, an extra stock.
He filled up the coil with kerosene oil,
And the stomach he lined with saline,
Till he emptied the gut without making a cut,
And the patient then said he felt fine.

Then he peeked all about, looking in and out
Till he found out who was the girl
Whose erratic doings and worriting wooings
Had put the man's heart in a whirl
To save his poor life, she became his wife—
As girls do now and then—
He could then get away with three meals a day,
And sometimes nine or ten.

THE MULTIPLICATION OF FLIES

It may be of interest to consider some statistics, showing to what enormous numbers the descendants of one fly may reach in the course of a summer. As most of you are aware, the eggs of a house fly hatch in from approximately six to twelve hours, and the maggots issuing therefrom reach their full size in from four to seven days. The outer layers of their body then harden and turn brown, forming the puparium, while the parts within become what is known as the pupa.

The duration of the pupal stage is from five to seven days, at the expiration of which time the adult emerges as a perfect fly. The life of the house fly then occupies from ten to twelve days, and there may be from ten to thirteen generations in a summer, depending upon the character of the season and on the latitude.

Of the length of life of the adult we cannot speak with certainty, for the only way this could be determined is by confining the insects, and when this is done, conditions of existence are so unnatural that observations upon this point are not reliable.

A female house fly which has hibernated in a dwelling house, or elsewhere, may produce in the spring, at the lowest estimate,

one hundred and twenty eggs. Assuming that one-half of these hatch as females, and allowing that the breeding goes on without check for four months, we have as the descendants of a single hibernating individual 214,557,844,320,000,000,000,000 flies.

Now, a house fly measures exactly one-fourth of an inch in length; the distance around the earth at the equator is said to be 24,800 miles. It would take, therefore, 3,688,312,000 flies placed end to end to go around the world once. Using this number as a denominator, and the number of flies produced in four months from one mother as a numerator, we find that she will give rise, in the cousre of a summer, to enough flies to encircle the globe at the equator five thousand times, and have plenty of progeny to spare!—Prof. F. L. Washburn, St. Anthony Park, Minn., in the August number of *Popular Science Monthly*.

After reading the above, and pondering a while on all the crimes of that notorious malefactor, musca domestica, perhaps it is well to get an antivivisectionist view of this much swatted insect, as seen by Walt Mason:

"Oh, swatter, hold your hand, I beg, and do not slay that humble fly that tickles you with active leg—why should the lovely creature die? The Force that gave you life and breath designed that fly, so blithe and gay; who gave you powers of life and death? Who said that you might freely slay? Because some scientists insist that flies bear germs from place to place, you take a bludgeon in your fist and would exterminate the race. The germs and flies have equal rights with men enjoyment to pursue, and so have skeeters, which, at nights, oft charm us with their loud bazoo. I hold that any living thing has title deeds as good as ours, to loaf around this world and sing, and sip the honey from the flowers. And when I see some husky guy take lethal arms and fiercely pounce upon some unsuspecting fly that does not weigh a half an ounce, I feel that I'd set up cigars, or buy the lime juice by the tub, if some big monster came from Mars and soaked him with a twelve-foot club. When next you go to swat a fly, imagine that the monster came—some freak a thousand cubits high, and held a club above your frame!"

CORRECTION: UNIVERSITY OF TENNESSEE

I read in the August CLINICAL MEDICINE, page 899, that "The Medical Department of the University of Tennessee has been moved from Nashville to Knoxville." Such action was contemplated but, instead, it was moved to Memphis and consolidated with one of the schools there, and still remains as the Medical Department of the State University. The medical school at Knoxville is known as "The Medical Department of the Lincoln Memorial University."

J. D. HENDERSON.

Knoxville, Tenn.

THE ALKALOIDS. UMBILICAL HEMORRHAGE. TAPEWORM IN INFANTS

I have been a constant reader of CLINICAL MEDICINE ever since it received its present name, and my interest in it is growing stronger with every succeeding issue.

I have been in continuous country practice since 1875, and have been in my present location for twenty-four years. I began to use the alkaloids about six years ago, and have steadily enlarged my use of them, with the most positive results and to my entire satisfaction. At present I am using nearly forty kinds and find some of them absolutely indispensable. I most certainly would not go back to use the galenicals that have been displaced by the active principles.

I have never attempted to contribute to THE CLINIC, but now desire to mention some of the cases I have had and tell of the good work done by use of the active principles.

Last winter, during a severe snow-storm, I was called to see an elderly lady who was having a severe attack of epistaxis. She was subject to such attacks, and at three different times it had been necessary to plug the posterior nares to control the bleeding. I gave a hypodermic of sulphate of atropine, 1-50 grain, and within ten

minutes the bleeding had stopped and did not recur.

About two years ago I was called to a neighboring town to see a lady who was suffering with severe menorrhagia during the menopause. I gave a mixture containing atropine, hydrastis and viburnum, and within twenty-four hours the flow had completely stopped, the patient making a prompt recovery.

At one time I was called to a case of acute indigestion, with bad heart symptoms from undue pressure. I gave a hypodermic of apomorphine, 1-10 grain. This emptied the stomach of an enormous quantity of undigested food, and relief was prompt and complete.

I have been using the hyoscine-morphine combination and find it wonderful in obstetric cases. Generally I use the half-strength tablets and seldom require more than two. Frequently a single one will work like magic. Under its use patients lose all dread of the labor, and there is perfect and complete relaxation of all the parts and almost never any laceration. I have never had any trouble with the respiration of the child, and so far no undue hemorrhages.

I once used a full-strength tablet, repeated in one hour, in a case of delirium tremens, and everything worked to a charm.

About twenty years ago I had a case of hemorrhage from the umbilicus in an infant three or four days old; the cord was partially detached and the hemorrhage was very profuse. I tried for a time local astringents, but they completely failed. I then took two curved needles and inserted them at right angles through the integument at the navel and applied a figure-eight silk ligature, cut off the points of the needles with cut nippers, applied a pad and bandage and let it remain nearly a week. The child made a perfect recovery and grew up strong and well.

Thirty-two years ago an infant sixteen months old was brought to me with a large nevoid growth upon the side. I gave the child ether, then removed the growth. The next day the child passed three tapeworms, entire, and of an average length of three feet. Did you ever hear of a younger child having tapeworm?

AVERY M. FOSTER.

Candia, N. H.

CLOSING THE ABDOMINAL WALL

In every respect, the kind of suture-material used, the method of introducing it—even to the tying of the sutures over the gauze dressing—the method Dr. Robertson describes in CLINICAL MEDICINE, page 279, is identical with the one published by me in *The Journal of the American Medical Association*, under the title of "Closure of the Abdominal Incision." My article was published January, 1907, and at the time it was written I was in ignorance of the fact that the idea of this method of closure had occurred to Dr. Haughey of Battle Creek, Michigan, many years before. In 1897, he published a method, in *The Journal of the American Medical Association*, to all purposes the same as the one I had described ten years later.

To Dr. Haughey I gladly grant all claim to priority. The only difference in our methods is that he used an over-and-over stitch in the fascia and retained the ends outside the skin by shotting, while I used a quilted stitch, which I found from experience brought the fascia into better apposition, and fastened the ends together over a roller of gauze, which also acted as a dressing for the wound. Subsequent experience with this method has more than fulfilled my expectations, and I am glad that Dr. Robertson has adopted it.

C. G. CHILD.

New York City.

PROPER TREATMENT OF INVETERATE ONYCHIA

The more remedies recommended, the harder the cure. In meeting with a case of onychia, we are many times inclined to think of specific infection and use anti-syphilitic measures. But in many cases the trouble is purely local and an anti-syphilitic treatment would not have any effect.

About a month ago a patient came to me with onychia on fingers and toes, and if ever there was occasion to think of syphilis, it was then and there. The man told me that he had been treated for one year or more, but instead of getting better he grew worse. He told me what was used and showed me a number of prescriptions. Besides many of these, which clearly indicated that the idea of syphilis was the first thought, I saw what were used: tonics, emollients, astringents, stimulants, yes, even actual cauterization.

"Now, doctor," said my patient, "before all things, for God's sake, do not recommend an antisyphilitic treatment, for I never had any trace of syphilis, and if you do not know what to do for me, say so and I shall go elsewhere."

I quieted him about it and said, "My dear friend, I have not the slightest intention to institute such proceedings. You will get well without that."

The way onychia (nonspecific) is managed was fully described, in the *Gazette des Hopiteaux*, by Prof. Delattre of Toulon. Clean the nails and disinfect them; now put on the common powdered alum, then bandage the fingers. Renew this once a day—and that's all. My patient was completely cured in twenty-two days.

D. ZWIGHTMAN.

Niles, Mich.

EYE-STRAIN AS A SOURCE OF IRRITATION IN EPILEPSY

I was much interested in Dr. Kiernan's article on epilepsy, in the May number, and admire his definition, pathology, and treatment. In outlining treatment, he well places at the front, "Remove all sources of irritation." However, in naming these sources, he omits, to my mind, the most common, and fruitful source, the eyes.

Examination has proven that 95 percent of people have an error in refraction, and of these 95 percent at least 90 percent are hyperopes. This means the constant exercise of accommodation during all waking hours, with extra for close work—a constant turning of nerve-force; and as four and one-third pairs of the cranial nerves go to the eye, we can see how this causes strain.

This muscle of accommodation, from being in contraction so much overtime, by and by reaches a state of spasm, tonic or clonic, and eventually other circular muscles of the body, notably intestinal, rectal, cervical, and vesical, through the sympathetic system, reach a like state of spasm, when largely from that cause we have indigestion, constipation, painful menstruation or cystitis, and only, or largely, by removing the cause can the cure be effected.

It is not necessary that the error be very great. In fact, in great errors the accommodation refuses to try to overcome it and then there is no strain. However, in *all* cases of epilepsy, even traumatic, let me urge an early and thorough examination of the eye and the correction of even a quarter diopter of error. I do not say this will cure the trouble, but I feel safe in saying that no one thing will do so much, and, coupled with regulation of diet and habits, a cure may be confidently expected.

In choreic children, too, examine the eyes. I have recently fitted two children of 12 and 13 years. Both have lost a great deal of school and taken arsenic to the limit. By correcting the eyes, relieving the nerve strain, prescribing a nutritious diet, both are coming out of school in fine shape. The girl, especially, is rosy-cheeked and so improved in temper since wearing glasses as to be almost a stranger to her family.

Again let me urge, in all nervous troubles look out for reflex troubles from eye strain, and correct at once.

J. F. S.

——, Ohio.

THE AMOUNT OF URINE EXCRETED IN TWENTY-FOUR HOURS

The examination of a single specimen of urine voided gives one very little information, as may be seen from this example: Given two patients, A and B. The amount of urea in A's urine is 1 percent, so also the amount of urea in B's urine is 1 percent. From this, they both apparently are

voiding about the same quantity of urea. But if we look at the matter more closely, we find that this is not true, for, if A is voiding 2000 Cc. of urine, he is voiding, in twenty-four hours, 20 Grams of urea, which is about two-thirds of normal. B, on the other hand, who is voiding only 1000 Cc. of urine in twenty-four hours, is voiding only 10 Grams of urea, which is one-third the normal.

From this you can readily see that examination of a single specimen of A or B, each showing 1 percent of urea, really means nothing. You really do not know any more after receiving this report than you did before.

Doctor, it is highly essential that you know the amount of urine excreted by a patient in twenty-four hours. Of course, casts, formed elements, and crystals, can readily be found in any specimen, but we obtain greater evidences of these pathologic constituents of the urine sediment about three hours after a meal.

Therefore, if you are only going to send a specimen of a single voiding for this purpose, then submit one that has been voided three hours after one of the principal meals of the day; always remembering, however, that the bacteria universally present in urine soon destroy the casts, eat up the albumen and ferment the sugar. In fact, very frequently after forty-eight hours have elapsed no casts can be found in urine, which formerly contained them in large quantities, unless a preservative has been added.

For preserving urine, add (to 4 ounces) either 10 drops of chloroform, 5 grains of camphor, thymol or menthol, 6 drops of formaldehyde solution, or 5 grains of boric acid. Be sure, however, to mention the name of the preservative added, otherwise its unknown presence may interfere somewhat with the analysis.

J. Favil Biehn.

Chicago, Ill.

AESCULIN AND ASPIDOSPERMINE, TWO NEGLECTED ALKALOIDS

There are a few of the active principles that I feel do not get the pushing their merits entitle them to. One is æsculin. Under the conditions of our modern civilization, it is the exceptional adult patient who has no rectal debility, and who consequently is not benefited by this drug. Strychnine valerate is its best adjuvant. I find it advantageous to add æsculin to the regular clean-up, whether hemorrhoids are present or not.

Another alkaloid which has a wider field than seems to be recognized is aspidospermine. It is indicated, not only in dyspnea, but also in cyanosis or whenever more oxidation is needed, such as a bad fit of the "blues."

In cyanosis from carbon monoxide or anesthetics, try a hypodermic of aspidospermine and watch the color change. Or save time by dropping the dose under the patient's tongue; effects are just as prompt by the buccal route. But you must use big doses to neutralize the anesthetic, 1-2 grain being needed for an adult and 1-12 grain for an infant under one year. This usually will have to be repeated, as the effect does not last long.

Chas. F. Morrison.

Klamath Agency, Ore.

[You are right. Many of these active principles would well repay study. We set down what we know of them, but do not pretend that is all that might be known. Every report we have received on æsculin has been favorable. Would aspidospermine be of use in the asphyxia of Asiatic cholera? —Ed.]

"LIGHT NEVER ON LAND NOR SEA" THE SITUATION IN MEXICO

Dr. Robinson is flinging scintillating glints of light into the weird haunts of human wretchedness and misery, of more vital importance to suffering humanity than all the gospels living or dead, which the medical fraternity of whatever school or pretension would do well to study and ponder. Some squeamish and more fanatical brothers are likely to pounce on this new departure with both feet, without reflecting that it assails the curse of earth—*ignorance*—that is responsible for all our

ills and woes, physical, mental, and spiritual. *Light, light,* is what is needed, and more *light* and just such a course as Doctor Robinson is urging us to adopt and to practise is the medicine of medicines for the want of which the world is perishing. It is high time that ignorant prudery should have an end.

I am out of the proper latitude to take up the grand and vital question elaborately; I an engulfed in such profundity of stupid ignorance, the legitimate fruitage of long dark centuries of slavery, beneath the elevating influence of scientific light, that any effort to redeem the bottom strata of human life here in less than several generations would be love's labor lost. The truth is sad, but inexorable.

In Clinical Medicine for May appeared some deductions of mine, written under the erroneous impression that the revolution had collapsed, the Mexican government having been misled to announce it under positive control; but that was the only mistake. The situation has not improved. The insurgents are armed, demanding their promised homesteads—which likely will be the same as the forty acres and mule promised the freedmen after the Civil War. They are demanding all the postal, custom-house and other public employments in the government's gift.

A large element of the insurgents was recruited from savage Indians, cutthroats and bandits released from the jails, and peons taken from plantations, there being few respectable Mexicans, save officers, in the rebel army. In this vast belt, where sympathies were almost a unit against the government, six persons above the criminal and peon classes took up arms against the Diaz rule. A thousand would have been about the due number, with none voluntarily for the government. Such demonstration was not made because of fear of the federal power, but want of faith in a new governmental experience. Few, even of his most radical opponents, doubt the sincerity of Madero, yet his ability to perform is another and more serious problem. The socialistic fanatics, largely Americans, in Lower California and Sonora, defy Madero. No one yet knows how many rebels may refuse to be mustered out and surrender their arms. Federal employes ousted by rebels will have grievances. American capital that supported the revolution needs another civil war to superinduce American intervention. Thus thoughtful Maderists feel that they stand on slippery ground.

We Americans who are friends to the peaceful prosperity of Mexico hope there will be but one candidate for president, and that with Senor de la Barra and General Reyes, the strongest men in Mexico, in the cabinet, the danger of a subsequent revolution, due to electional disappointments, may be averted.

The damage to material prosperity and check to progress are utterly beyond rational computation. Years of peaceful industry will be required to heal the wounds.

The profession would probably enjoy reading the chapter Doctor Robinson would write were he here to see the mother in the kitchen before sunrise getting breakfast; to watch the ignorant Indian midwife, with not a semblance of aseptic precaution and no postpartum care save solutions of magne leaves; to find puerperal fever and eclampsia unknown, except only in college-bred women, but foreigners often victims of abortion and frequent perilous and difficult childbirths. I do not participate probably more than once in each hundred births in my territory, the population being practically all of the immune natives, whether rich or poor.

Sterilizing criminals and victims of incurable hereditary transmissible diseases, and the breeding of healthful children in the enchantment of homely love is the true gospel to preach and to practise.

Robert Gray.

Pichucalco, Chiapas, Mexico.

ATROPINE AND OIL FOR BILE DUCT OBSTRUCTION

The rational application of definite principles in medicine is both possible and needful for the successful treatment of disease; and further, the determination of the exact nature of defective bodily functioning and choice of the accurate remedy is more readily possible by the use of the active

principles. The present paper is but the briefest therapeutic note, still it conveys a suggestion of the use of atropine in cases of obstruction of bile or pancreatic secretion when such obstruction apparently gives rise to reflex spasm affecting the musculature of the duodenum and the visceral motor mechanism.

Moynihan makes mention of such spastic action. Older writers had not, apparently, mentioned the effects of obstruction of the common bile-duct when the obstruction, by pressure or irritation, produced a spasmodic, or pain-reflex, effect upon subjacent tissue. Such a pain-reflex, while causing disturbance of the musculature and tonic or clonic spasm, would also cause a reflex hyperactivity upon the glandular elements of the pancreas and liver.

Atropine, let us remember, meets two cardinal indications, physiologically considered, namely: (1) It relaxes spasm in the musculature. (2) It diminishes glandular secretion.

With both of these indications we have to deal in cases of impacted gallstone. The writer has seen cases which clinically appeared to be obstruction of the gall-duct, and one which absolutely was a stoppage of the sinus of Vater; the passage of stools of food unchanged by any intestinal ferment confirming this diagnosis.

Analyzing the various possible causes of vaterian obstruction, we have:

(1) Gallstone. (2) Impacted catarrhal matter. (3) Torsion of sinus, (*a*) internally, (*b*) externally. (4) Intestinal impaction. (5) Ulcer or injury of the intestinal wall at the site, cicatrix, etc. (6) Spasm, reflex or neurotic.

In using atropine to meet any such indications, we must first have definitely established the existence of spasm, and, by that, the need of relaxation.

Administer the selected salt of atropine in suitable, small, divided doses. For an adult give 1-100 grain as often (by mouth) as once every three or four hours, up to physiologic pupillary reaction; then cease. Proceed again in twenty-four or thirty-six hours in a similar way.

In connection with this, the patient must be purged. More than this: give an intestinal lubricant. I have found the white odorless and tasteless liquid petrolatum, as used by Dr. Wm. D. Robinson years ago in intestinal fermentation, a most valuable adjunct.

The peculiar penetrative effect of liquid petrolatum sets it apart as a remedy of the greatest value in obstructive conditions. I have effected the cure of cases of marasmus by frequent small doses of the white liquid petrolatum, which astonished me. The value of petrolatum in catarrh or irritation of epithelial derivatives, I have assured myself, is a distinct one. Many times people tell me of pouring kerosene from a lamp into the throat of a croupy child and observing instant relief.

In these catarrhal and irritative gall-duct cases this product is decidedly useful, as may be shown by a few examples.

Case 1. A succession of attacks, accompanied by jaundice and final emaciation. Stools contained undigested potatoes and carrots; fat was unchanged; there was pain at the site of the sinus of Vater. Cancer had been diagnosed. Iodine was applied over the gall-duct; also dry heat in a steady concentrated current. Internally atropine and white liquid petrolatum were given. In thirty-six hours a hard fecal mass feeling like a stone was passed, but was lost. However, the jaundice vanished and intestinal digestion returned immediately.

Case 2. Diagnosis of gallstone, previously made, the patient using morphine regularly for the biliary pains. I substituted atropine for the morphine and added the petrolatum product named. Immediate relief resulted, followed by the passage of a pyramidal stone, the sharp edges of which explained much.

Case 3. A case of gallstone. More than two hundred calculi being passed under the relaxing influence of atropine and olive oil.

Case 4. Infant presenting a dim-yellow coloration. I diagnosed marasmus. The use of while liquid petrolatum and of a diluted thymol solution, in alternate doses of 5 drops each hour, effected a complete recovery.

In the adults, after the first restoration of function to the intestines, I have, of late years, employed the succinate of sodium as

recommended by contributors to The American Journal of Clinical Medicine. What this agent does, apparently, is to maintain a favorable *status quo*.

When does gall-duct obstruction become operable? Answer: Whenever a surgeon is at hand. This is not intended as a reflection upon the surgeon, for, frankly, operative treatment often is best. Personally, though, I am not anxious for any obviable major operation, and, therefore, in any treatment which carries us safely between the Scylla and Charybdis of operation or death I find a welcome friend. As someone has wittily remarked: "No man dies a death triumphant with a disease below the belt."

When a morbid, irritable temperament is brought to me for treatment (along with a disease), I feel sure that the ailment is catarrhal or in the epithelial derivatives, and in the channels of the abdominal glandular parenchymata, principally of the alimentary canal.

Just as an idea: the state of pupillary reflex is interesting. In cases of reflex irritation from the gall-duct, I have seen myosis. Is this a part of the syndrome?

T. H. Evans.

Freeport, N Y.

GLYCERIN AS A BLADDER "LAXATIVE"

Otto Franck (noted in *Therapeutic Medicine*, 1911, July) injects a 2-percent solution of boric acid in glycerin to overcome the not infrequently occurring postoperative vesicular paresis and to avoid the use of the catheter and its attendant dangers. He does not introduce a catheter, but simply injects into the urethra 15 to 20 Cc. of the solution. About 10 Cc. usually returns, while only from 5 to 10 Cc. enters the bladder. The glycerin acts as a stimulant to bladder peristalsis and within twenty minutes there is usually a spontaneous evacuation of urine. The ability to micturate spontaneously persists. No special irritation occurs.

The author also recommends this method in other forms of retention, especially in paralysis of neurogenous and mechanical nature. He also has used the method in strictures and prostatic hypertrophy and has succeeded in bringing about spontaneous evacuations, if only for a time. In those cases in which the catheter can not be passed, the plan has a peculiar indication. Franck appropriately calls the glycerin a "liquid catheter." In acute infections of the anterior urethra, the method is contraindicated, although the glycerin would probably be less likely to carry the infectious agents inward than a catheter. In fact, glycerin has a distinct antiseptic action and was originally used in the bladder for this purpose in cystitis.

SUNSTROKE. TYPHOID FEVER. WHOOPING-COUGH

The August number of The Clinic is at hand and it is chock-full of good things, as usual. However, in reading over my note (p. 891) relative to the treatment of sunstroke, I find that I omitted to state that the patient should be placed in a recumbent position in a shady place if possible. As such cases need prompt treatment, while shady retreats and appropriate remedies are not always conveniently near, one must, of course, do the next-best available thing under the circumstances, to avoid any delay. Hence giving of whisky often may be, not only permissible, but imperative.

I note what The Clinic has to say about intestinal antiseptics in typhoid fever. As an internal antiseptic remedy for infectious and communicable diseases, I prefer—after having first cleaned out the intestinal tract with calomel—the administration of the old-fashioned simple mixture of sulphur and molasses. If there is any portion of the human anatomy which the sulphur will not permeate and disinfect, I have yet to discover it. I believe it to be superior to calcium sulphide as a disinfecting agent, having tried both. The objection to its use is its odoriferousness. [Sulphur is good—but calx sulphurata much better—we think.—Ed.]

There is another fact I wish to mention in regard to the treatment of typhoid fever, namely, the necessity of guarding against intestinal hemorrhage. When, in these cases, you see a dark-brown incrusted tongue, as rough and as hard as burnt

sole-leather, it is a danger-signal that calls for the immediate administration of oil of turpentine. This will clean off and soften the tongue in thirty-six hours. Commence by giving 15 drops in the white of egg every hour or two; and if there is hemorrhage from the bowels, give the oil of turpentine clear in teaspoonful doses. It will work like magic. Try it.

A few years ago I had five members of my own family ill with typhoid at one time, resulting from the seepage of sewage from a neighbor's cesspool into my well, and severe intestinal hemorrhage occurred in one of the victims. Oil of turpentine being at hand, I administered it at once and controlled the hemorrhage; and I then gave it to the other four, as a safeguard against similar attacks.

While I am about it, I should like again to call the attention of THE CLINIC readers to the efficacy of silver iodide as a superior remedy for whooping-cough. For more than forty years I have observed the speedy beneficial effect of this agent when numerous other measures had failed to cut short or ameliorate this distressing malady.

These "little drops of water and little grains of sand" are doubtless familiar to the members of THE CLINIC "family," but it sometimes is beneficial to have a sort of quiz-rehearsal, to be reminded of even the simple remedies within our reach in cases of emergency.

GEO. D. STANTON.

Stonington, Conn.

OBSCURE INTESTINAL DISEASE

What would you have done in these two cases? Infant, male, 22 months old, has always been healthy and is large for his age; raised on the bottle after the seventh month.

I was called to see him Friday evening about 8 p. m. and found temperature 102° F. in the groin, pulse 114, bowels slightly constipated and bloated. He was given 1-4 grain of calomel every half hour for four doses resulting in dark-green stools, not profuse or of particularly bad odor. He seemed somewhat better for the next four days, was up playing around a part of the time, and not much attention was given him, as his little brother was very sick—of which I will speak later.

One Wednesday, after the funeral of his little brother, his mother noticed that he was sleeping more than usual. She felt him and he did not seem hot or feverish; but she sent for me on account of his sleeping so much. His temperature in the groin, as he slept, was then 105° F., pulse 118. His face and hands did not feel hot, nor did his feet. I had prescribed for him the first night I saw him, calomel, 1-4 grain every half hour for four or five doses; arsenite of copper and the sulphocarbolates of zinc and soda every two hours. This had been kept up for the four days. Bowels were still showing green stools, with one or two exceptions, when they showed some bile with the movement.

When I found his temperature was 105 degrees, I irrigated the bowels with normal salt solution and got a few green stools. I immediately increased the arsenite of copper to 1-200 grain, and sulphocarbolates of zinc and soda to 5 grains at a dose, given every two hours for ten doses in twenty-four hours. For the fever I gave aconitine, digitalin and veratrine every twenty minutes for six doses; waited two or three hours, then repeated. I gave also one-third of a granule of aconitine, and one-fourth each of digitalin and veratrine at a dose. The medicine did not seem to have any effect on the fever, as the temperature would frequently shoot up to 105.5° F.

We now commenced to give him hot baths, having the water tepid to begin with and then added water to as hot as he could bear it. After taking him out of the bath, we wrapped him in a blanket and sweated him for one or two hours. This would bring his temperature down 2 to 4 degrees, and once, the mother said, it was normal for a few hours. She took the temperature three times to see if it was true. The bowels were irrigated every six hours.

After the second day of the relapse, peroxide of hydrogen was used in the injections—four ounces of the peroxide solution to sixteen ounces of water. This seemed to bring away more of the green stools than any other injection. Some of

the stools were as green as if he had chewed green grass.

After the relapse he was not given a particle of milk, but all the water he could drink and oatmeal water, and the last two days malted milk; but we could not keep that fever down, except for a short time.

For two days we wrung woolen cloths out of a solution of magnesium sulphate, one ounce to a quart of hot water, and changed every half hour. This was kept covered with dry woolen cloths. The little fellow's pulse never was over 120 and most of the time below that; good and regular.

He was given doses of epsom salt and castor oil, and the calomel was kept up. The three last days I added echinacea and emetin to the arsenite-sulphocarbolate solution. The little fellow had inunctions, every four hours, of quinine in his arm-pits and groins.

I was with him three nights all night. His mother is a graduate of the Battle Creek school of nurses and we had good help. About two hours before he died he showed signs of convulsions: eyes were set, muscles of face twitching. We put him in the hot bath with mustard. I took his temperature just before putting him in the bath, and it was then 105.5° F. His face was pale. We kept him in the bath for one-half hour before the eyes relaxed. In the meantime I had given him a hypodermic injection of glonoin and one of strychnine while in the bath. We took him out and wrapped him in blankets. He became moist, but slept on to the eternal sleep. I took the temperature in the arm pit just a few minutes before he died and it was 107.6° F.

Now, brother, how would you have handled a case like this. Some might suggest ice, but there were but very few times that the little fellow's head and feet or his body felt hot to the touch.

And now I want to tell you of his little brother, 7 months old, who had never been sick a day of his short life. He was a fine, healthy-looking boy. As stated, I was out to see the other one on Friday night and this little fellow was well as ever. Saturday at 1 p. m. I was called to see the smaller one, who was panting for breath and at every breath his little head would jerk. His temperature was 102° F., pulse 118, some rales in the lungs, bowels constipated, stools green; a very little cough and that tight.

I gave him an injection of normal salt solution, calomel, 1-4 grain every half hour for four doses; aconitine and veratrine for fever. Woolen cloths were wrung out of hot water and put on his lungs changed every twenty minutes and this kept up for twelve hours. I gave him bichromate of potassium as expectorant and tried to give enough to vomit. Then I gave emetin and apomorphine to make him vomit, but could not succeed. His temperature remained about the same. The bowels did not move very freely. My consultant, who was a man of forty-five years' experience, recommended doubling the doses of the calomel and to follow with castor oil, which we did, but without avail.

The little fellow died in convulsions thirty-six hours from the time I saw him. I used nuclein for three days in the first case. Had the same consultant in both cases. This baby was breast-fed.

W. E. D.

——, Iowa.

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[We have very carefully considered the data presented in your communication. Frankly, doctor, we are unable, with our limited knowledge of conditions, to make intelligent criticism or even to venture a diagnosis.

You do not state anything about the reflexes, condition of pupils, presence or absence of opisthotonos. That you had to deal with a severe enteric disorder is evident. In the second case at least we should be inclined to suspect the presence of the intestinal form of grip. You do not state whether there was any enlargement of the liver; neither do you give us any information relative to the amount of urine voided or character of the same.

The conditions present in case No. 2 do not seem to resemble very markedly those observed in case No. 1. It is just possible that the cause of death in the latter instance was bronchial pneumonia; the child being practically suffocated by his own

secretions. The extremely high temperature observed just before the death of the 22-months old child leads us to suspect meningeal involvement, and as we have already pointed out, the other symptoms lead us to the conclusion that the bacillus Pfeiffer was the infecting bacterium, the digestive tract, and perhaps later the meninges, being particularly involved. An autopsy might have proven instructive.

As you will readily see, it would be presumptious on our part to criticise the treatment when we are unable to decide definitely as to the character of the pathologic conditions you have to contend with. We present your description of the case to the readers of CLINICAL MEDICINE, for comment.—ED.]

CHICKEN-CHOLERA AND SULPHOCARBOLATES

In a discussion of the principles of sexual selection based on the gay plumage of male birds, one of the participants cut the matter short by denying the possibility of basing a scientific argument upon what might be supposed to be going on in the mind of a hen. However, in studying what goes on in the body of a hen, we may at least find scientific testimony as to the action of medicines when they are administered. Some experiments recently made at the Colorado Agricultural Experiment Station and published in *News Notes* of May 12 may prove of interest. I will let Professor Kaupp tell the whole story himself:

"The Veterinary Section of the Colorado Agricultural Experiment Station has been experimenting with different remedial agents with the view of finding some drug that would at least curtail the enormous loss among barnyard fowls from the various forms of diarrheas.

"Space will permit the discussion of only one agent. The one that has thus far given us the best results contains the sulphocarbolates of sodium, zinc and lime. One flock consisted of sixty birds. Several were sick at the time treatment commenced and four had died. The discharge from the bowels was of a greenish-yellow color, somewhat simulating fowl-cholera. One 30-grain tablet was dissolved in a quart of water and this fluid was mixed with bran and corn-chop. The mixture was then fed in clean troughs. In this way each bird got approximately 1-2 grain of the remedy. This was repeated night and morning. No additional birds became sick, only two of those sick died, and the rest recovered.

"Another flock consisted of 175 baby chicks. As soon as these birds were taken from the incubator, they were fed the unhatched eggs that had been cooked and chopped. This mixture was reported to possess an offensive odor. The birds began dying with symptoms of diarrhea, white, pasty vent, weak, dull, droopy wings, etc. One-half the flock died before treatment was begun. One-half tablet was dissolved in warm water and the bread saturated with it. The birds immediately quit dying.

"Still another flock consisted of 200 birds, including a few turkeys. Cholera had appeared on the premises the fall before. The outbreak was studied in the field and laboratory. The germ (bacillus avicepticus) was isolated. In the last outbreak fourteen birds had died and several were sick. Similar treatment was used as in the above flocks, except that powder was used instead of the compressed tablets. One rounding tablespoonful was dissolved in each two gallons of water. This water was kept constantly before them. No more birds were taken sick and no more died after the sixth day.

"The above is a good illustration of three types of diarrhea in which we have found this drug by far the best agent tried.

B. F. KAUPP, Pathologist,
Colorado Agricultural College
Fort Collins."

That the sulphocarbolates are effective in diarrheal complaints in human beings is no news. Many will also second Professor Kaupp's findings, that they are the most efficient remedies for these troubles as yet developed. It is gratifying to note that this beneficial influence may also be utilized for the diseases of animals, and that the breeder of chickens may be saved the enormous loss assessed upon him by chol-

eraic maladies. Several reports have been made of similar success won in treating hog-cholera, and there is no known reason why these salts should not control such affections in all animals.

My own work with the sulphocarbolates began over thirty years ago. Cholera infantum has long since been erased from my list of lethal maladies; in fact, the disease itself has become extinct in my families, where every disturbance of digestion is promptly met by the clean-out and disinfectant method. I rarely receive a report nowadays upon the use of the sulphocarbolates, because they are a matter of course. Sometimes a record of failure comes in, which, for lack of anything new on the topic, I always run out. Invariably the failure falls into one of three categories:

1. Impure sulphocarbolates are given, which will not be retained by the stomach.

2. Too small doses are given for the need. There is no top to the dosage. One man writes that he has given 700 grains of sodium sulphocarbolate a day! I have never required over 120 grains a day, but I thoroughly empty the bowels at the start.

3. The sulphocarbolates are given after the case has become hopeless and the patient is dying of perforation, hemorrhage, heart-failure or exhaustion, against which these remedies are powerless as remedies, being potent only as preventives.

The sulphocarbolates are *never* "cures" for typhoid fever; they are solely intestinal antiseptics, and whenever and in so far as intestinal antisepsis is useful during typhoid fever, the sulphocarbolates are effective.

A corkscrew is excellently devised to win access to a thirst-dispelling liquid, but it is a very poor door-key.

Of late the prime importance of fecal toxemia is being comprehended. It has been universally taken for granted that the bowels take care of themselves, and that they should be interfered with only when absolutely necessary.

Dame Nature was trusted implicitly, far more than she deserved. Metchnikoff was mainly responsible for the awakening, when, in his picturesque way, he showed that the colon was an evolutional relic, not essential, but probably the main cause of the pathologic conditions that shorten life. Fifty years ago people would have resented such a suggestion as an imputation against an allwise and benevolent Creator. Now they ask anxiously whether it can be true, and what they should do.

Let any clinician take up and study his own digestion, note how the vagaries of temper and mood, the elation and despondency, the euphoria and cacophoria of his life depend upon his digestion. Let him study the mental weariness and sluggish somatic and psychic movement when he has a colon load of retained feces to poison the wellsprings of his being; and then the happy, alert bouyancy following the complete abatement of the nuisance. Yet, though he be a professor, a surgeon of many cuttings, illustrious in the council halls, a very Saul among his brethren, even yet will he be edified and win merit by the study of his own colon.

W. F. Waugh.

Chicago, Ill.

NEWS NOTES

Kansas City has put a stop to the house-to-house sale of medicine. Anyone who hereafter distributes patent medicines in this way is in danger of arrest.

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The United Fruit Company has agreed to give $5000 per year, for five years, to Tulane University, in New Orleans, for the establishemnt of a school of tropical medicine. With this and other generous subscriptions, the success of the school seems assured.

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A conference is to be held in Nashville, Tennessee, September 14 to 16, to consider means for the suppression of the hookworm disease in the South. This conference will be attended by the district and state directors of the Rockefeller Hookworm Fund, and by many secretaries of the southern boards of health.

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Two years ago, as a result largely of the efforts of our friend Dr. H. C. DeVighne, Congress passed a medical practice act for

Alaska. The first conviction under this law was made July 20. Dr. Jos. Weyerhorst of Juneau was sentenced to imprisonment for practising medicine without first securing a license.

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The State of Kansas is the next to abolish the common roller towel. The State Board of Health has ruled that this menace to the public health must go after September 1, 1911.

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Kansas has swatted the fly, muzzled the dog, and now she is going to shave the cat—at least that is the recommendation of Dr. Deacon of the State Board of Health. He has found innumerable germs on the hair and whiskers of poor pussy.

Query: Before shaving the Kansas cat will it be necessary to procure a license from the State Board of Barbers' Examiners?

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The American Practitioner and News quotes the following from Dr. Ben Trovato: "In reply to a letter from a young German friend who desires to know something about our laws regulating the practice of medicine, in order that he may decide whether or not to come here to make his living, I have written that in the majority of the states almost anybody may practise without a license except a regular graduate in medicine."

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A very unique method of advertising their sect was discovered by the osteopaths at their annual meeting in Chicago in July. The proposal was seriously made that several hundred patients should be treated at some large central hospital by osteopaths, homeopaths, eclectics, and "allopaths." The osteopaths were willing to stake their professional experience on their ability to carry off the honors. In one respect our osteopathic friends have the medical profession beaten to a frazzle—their "advertising" methods are in a class be themselves.

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One of the most interesting magazines that has recently come to our attention is *The Simmons Magazine* (150 Nassau St., New York City.) It is high class in every respect, and the subscription price is only $1.00 per year. In the August number there is a fine article upon Tacoma, "The City of Destiny," an article about Saratoga Springs, some fine stories by Margaret Hobson, C. J. Henrikson, Alex Gardiner, Edgar S. Nye, and others. What particularly interested us, however, was the "medical department" conducted by our old friend, Dr. Ernest F. Robinson of Auburndale, Massachussetts. We can honestly commend *The Simmons Magazine* to our readers.

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The Congressional Record has been used for many purposes, but heretofore we believe it has never been employed to promote the interests of a medico-religious sect. Recently, however, the mails have been loaded with the franked speech of Senator Works of California, who in an address to the Senate gave an account of his conversion to Christian Science, telling how he and his wife were cured of disease and his son reclaimed from the drink habit. This assuredly should give a decided boost to the Christian Science propaganda. I suppose next we may expect one of the Senators from Ohio to fill a number of the *Record* with stories of cures effected by that medical marvel, "Peruna." Why not?

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N. A. R. D. Notes and *The Western Druggist* feel a good deal elated because the section of pharmacology, at the last meeting of the A. M. A., passed a resolution recommending physicians to "relegate to pharmacists the dispensing and limit themselves to the prescribing of medicines." However, these journals fail to emphasize the fact that this resolution also stated "That there are conditions existing which require physicians to dispense their own medicines." They also fail to grasp the fact that this resolution was passed by one, probably the smallest, of the twelve sections, which has among its members and in attendance every year a considerable number of "by courtesy" members who are not physicians but druggists. As representing the opinion of the A. M. A. as a whole, this resolution has no significance whatever.

Are you making your plans to attend the annual meeting of the Tri-State Medical Society of Illinois, Iowa and Missouri, to be held at Fort Madison, Iowa, on September 26 and 27. The president is Dr. Walter Urban Kennedy of St. Louis, Dr. Thomas G. Atkinson, editor of *The Medical Brief*, is listed for the address in medicine, and Dr. George W. Crile of Cleveland, Ohio, for the address in surgery. A fine program has been prepared, and our brilliant and brainy friend, Dr. Emory Lanphear, the treasurer, will participate actively in making the meeting a tremendous success. Every doctor should be in attendance who can possibly arrange to do so.

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The thirty-seventh annual meeting of the Mississippi Valley Medical Association will be held at Nashville, Tenn., Tuesday, Wednesday and Thursday, October 17-19, 1911. The general meetings will be presided over by Dr. Robert H. Babcock, of Chicago, who, though blind, is one of the most eminent physicians in the country, having written two standard books upon diseases of the lungs and diseases of the heart and blood-vessels. Every word in each book Dr. Babcock wrote himself upon a typewriter. Dr. Babcock's presidential address will be upon "Medical Tendencies"; and the address in surgery will be delivered by Dr. Joseph D. Bryant, of New York, entitled: "The Indebtedness of Posterity to the Pioneer Surgeons of the Mississippi Valley." The address inmedicine will be given by Dr. J. C. Wilson, of Philadelphia, entitled: "Doctors and the Public." Among the celebrities who will attend are two English physicians, Dr. C. W. Suckling and Dr. D. Billington, both of Birmingham, who will take special part in a symposium upon the displacementsof the abdominal organs.

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The "carrier" has become an important factor in the problem of prevention of infectious diseases. We have known for years that typhoid-fever germs might be harbored by individuals, in the alimentary canal or the bladder, for months, yes, in some cases, for years. We now know that diphtheria germs may linger, for an almost indefinite period, in the throat of children who have had diphtheria, perhaps so light that the disease was not recognized. The latest development of this kind is in cholera. It now seems certain that many of the untraceable outbreaks are due to the fact that some unsuspected individual, who went about his duties in what appeared to be perfect health, was carrying germs of the disease with him everywhere. Modern preventive medicine now takes that factor into consideration. The health authorities in New York, for instance, are now examining the excreta of every immigrant coming from an infected port. While the "carrier" seems to be the greatest danger at present, the fact that we recognize his presence and are taking proper precautions will greatly lessen the danger of an epidemic.

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According to no less an authority than Dr. Howard, chief of the Bureau of Entomology, a single house-fly may carry from 550 to 6,600,000 bacteria, bearing the germs of typhoid fever on its legs and in its digestive organs. One single footprint of a house-fly was found, by Cobb, to have left 800,000 fungus spores! One million two hundred and fifty thousand is the average number of bacteria per fly found by Esten and Mason in experiments with 414 flies which had fed at cow-stables, garbage-barrels, pig-pens, etc. To prevent the pest of flies, do the following:

First: Screen all houses, and especially the kitchens, all restaurants, all grocery stores; every place where flies can get at food. Remember that you are not merely screening out an unpleasant nuisance, but an actual vital danger.

Second: All filth (manure, garbage, human excreta) must be covered by screening or destroyed, so that flies cannot breed and feed in it and bear from the premises a curse of disease-germs. We have no right to breed death for others.

Third: The whole community must work together, planning to end the fly scourge. That is what Major Wanhill did with his typhoid-fever-afflicted British troops in Bermuda. In two years he almost wiped out typhoid fever, largely by ending the fly nuisance.

State-Board Examination Department

Edited by R. G. SCHROTH, M. D., 546 Garfield Ave., Chicago, Ill.

ANATOMY

1. Give the general classification of bones.

Classified as Axial (75-) and Appendicular (122).
Axial:
- Head (22)
  - Skull (8)
  - Face (14)
- Trunk (53)
  - Vertebræ (21)
  - Thorax (25)
  - Pelvis (1)

Appendicular divided into upper and lower extremities:
- Upper extremity (64)
  - Shoulder (4)
  - Arm (2)
  - Forearm (4)
  - Hand (54)
- Lower extremity (58)
  - Thigh (2)
  - Leg (4)
  - Foot (52)
- Bones are classified further into:
  - Long (90)
  - Short (30)
  - Flat (38)
  - Irregular (39).

2. Name the openings of the heart.

Aortic, vena cava, pulmonary (1), pulmonary artery, auriculoventricular, coronary sinus.

3. Give branches of internal carotid artery and their distribution. (q?p11)

Tympanic, supplies tympanum.
Arteria receptaculi, supplies walls of the sinuses, gasserian ganglion.
Anterior meningeal, supplies meninges, especially pia mater and arachnoid.
Ophthalmic, supplies eye proper and orbit of eye.
Anterior cerebral, supplies anterior part of cerebrum.
Middle cerebral, supplies brain and meninges.
Posterior communicating (part of circle of Willis), supplies brain.
Anterior choroid, ends in choroid plexus of brain.

4. Describe the appendix vermiformis. Locate McBurney's point for performing appendectomy.

The vermiform appendix is a worm-like, tubular outgrowth which springs from the inner and posterior surface of the cecum, about an inch below the ileocecal orifice. It may point in any direction, but usually over the brim of the pelvis into the pelvis; upward behind the cecum; upward and inward toward the spleen. Its size varies. It is usually about 3 1-2 inches long and 1-4 inch thick. Its lumen varies with the age of the individual, being largest in the young, and smallest in the aged. It is covered with peritoneum, and has serous, muscular (longitudinal and circular), submucous, and mucous layers, and contains lympnoid nodules. McBurney's point is a point midway between the umbilicus and the anterior-superior spine of the ilium, and one-half inch above it.

5. What is the origin, action and nerve supply of the rectus femoris muscle?

The rectus femoris arises by two tendons: the straight, from the anterior inferior spine of the ilium; the reflected, from a groove above the brim of the acetabulum, and is inserted into the tubercle of the tibia, by way of the quadriceps extensor tendon. (Some authors give the insertion into the patella.) Action, to extend the leg. Nerve, anterior crural.

6. Give the boundaries of the thorax.

The thorax is formed by the sternum anteriorly, ribs and costal cartilages laterally, and the bodies of the dorsal vertebræ posteriorly. Superiorly, by the first rib, and inferiorly, by the diaphragm.

7. Describe the intestinal tract and name its divisions.

The alimentary tract is a musculomembranous tube, about 30 feet in length, extending from the mouth to the anus, is lined throughout with mucous membrane, furnished with several accessory organs, and performing the functions of ingestion, mastication, insalivation, deglutition, digestion, assimiliation, and egestion. It is divided into mouth, pharynx, esophagus, stomach, small intestine (duodenum, jejunum, and ileum), and large intestine (cecum, colon, and rectum). The first three lie above the diaphragm, the rest below it.

8. Describe the sympathetic nerve.

The sympathetic nerve consists of a series of ganglia, connected together by intervening cords, one series on each side of the median line of the body, partly in front and partly on each side of the vertebral column, beginning in the ganglion of Ribes, on the anterior communicating artery and ending in the ganglion impar in front of the coccyx: three great gangliated plexuses situated in the thoracic, abdominal and pelvic cavities, smaller ganglia in relation with the abdominal viscera, and numerous communicating and distributing nerve-fibers.

9. Give a general description of the spinal cord.

The spinal cord is that part of the cerebrospinal axis which is situated in the spinal canal. Its length is about 16 to 18 inches, and it terminates at the lower border of the first lumbar vertebra, in the cauda equina, or filum terminale. It is cylindrical in form, with two enlargements, one in the cervical region and one in the lumbar. It is composed of gray and white matter, the gray being inside. Has three enveloping membranes, eight fissures, four columns, and a central canal.

10. What are the cranial nerves? What do they supply? Name function of each.

The cranial nerves arise from the brain direct, and supply organs situated in the cranium or emanate through fissures in the cranium.

1. Olfactory, supplies nerves of smell. Function, special sense.
2. Optic, supplies eye. Function, special sense.
3. Motor oculi, supplies eyeball muscles. Function, motor.
4. Patheticus, supplies superior oblique muscle of eyeball. Function, motor.
5. Trifacial, supplies head-, face- and cheek-muscles. Function, motor and sensory.
6. Abducent, supplies external rectus of eyeball. Function, motor.
7. Facial, motor nerve of face, and nerve of facial expression. Function, motor.
8. Auditory, supplies apparatus of hearing. Function, special sense.
9. Glossopharyngeal, supplies posterior one-third of tongue and lateral part of palate, muscles of pharynx, and parotid gland, tonsils, anterior palatine arches, soft palate. Function, motor, sensory, and special sense.
10. Pneumogastric, or vagus, supplies meninges, external ear, pharynx, larynx, heart, lungs, esophagus, stomach, spleen, liver. Function, motor and sensory.
11. Spinal accessory, supplies sternomastoid and trapezius muscles. Function, motor.
12. Hypoglossal, supplies meninges, neck-muscles, and intrinsic muscles of the tongue.

CHEMISTRY, ETIOLOGY, AND HYGIENE

CHEMISTRY

1. Define valence, acid, base. What is valence of Ca, Na, K, As, Ba?

An acid is composed of an electronegative element or radical with hydrogen, part or all of which hydrogen it can part with in exchange for an electropositive element, without the formation of a base. A base is a substance which can enter into double decomposition with acids to produce a salt and water. Valence is the combining power of an atom of an element as compared with that of an atom of hydrogen. Calcium is bivalent; sodium and potassium are univalent. Arsenic is a triad; barium is a diad.

2. Give a test for arsenic.

Reinsch's test is as follows: To the suspected fluid add a little pure HCl; suspend in the fluid a small strip of bright copper foil, and boil. If a deposit forms on the copper, remove the copper, wash it with pure water, dry on filter paper, but

be careful not to rub off the deposit. Coil up the copper, and put it into a clean dry glass tube, open at both ends, and apply heat at the part where the copper is. If arsenic is present there will appear in the cold part of the tube a mirror which will be found on microscopical examination to consist of octahedral crystals of arsenic trioxide.

3. Give a test for hydrocyanic acid.

Add ammonium sulphydrate and evaporate to dryness; then add solution of ferric chloride. A red color results from the reaction.

4. State the occurrence and properties of oxygen, of hydrogen, of nitrogen.

Oxygen. Occurrence: Free in the air and in combination in water, rocks, minerals, etc. It is more abundant than any other element, forming about 47 percent of the earth's crust and atmosphere. Properties: It is a colorless, odorless tasteless gas, heavier than air, slightly soluble in water, has an intense affinity for other elements, combining with almost all except fluorine. It is necessary to life, and is a supporter of combustion.

Hydrogen. Occurrence: Free in volcanic gases, in fire damp, and the gases of the intestines. In combination: in water, all acids, in many organic compounds. Properties: A colorless, tasteless, odorless gas, the lightest known substance; it has a great affinity for oxygen; it supports neither combustion nor respiration; it is a necessary constituent of all acids; the gas will burn with a pale blue flame.

Nitrogen. Occurrence: Free in the air, in combination in nitrates, in ammonia, in many organic substances. Properties: A colorless, odorless, tasteless gas; it neither burns nor supports combustion nor respiration; it has no tendency to unite with other elements.

5. What is the formula for carbolic acid? Antidote?

$C_6H_5(OH)$ Alcohol, sodium sulphate, and vinegar are antidotes.

ETIOLOGY AND HYGIENE

1. Give etiology of pelvic peritonitis.

Due generally to sepsis or gonorrhea. May be due to salpingitis, ovarian inflammation, pelvic cellulitis, septic cystitis, metritis, perforation of uterus, perityphiitis, appendicitis.

2. Give the etiology of apoplexy.

Generally due to bursting of cerebral blood-vessel, most frequently the middle meningeal or some of its terminal branches, especially Charcot's artery; or the artery in the sylvian fissure, and sometimes the anterior cerebral artery is involved. The vessel is usually sclerotic, with miliary aneurisms, and on rupture the blood is poured out into the brain-substance, producing acute softening, which substance is later absorbed, and a cyst or a scar remains

3. Give the etiology and means of prevention of typhoid fever.

Typhoid fever is due to invasion of the small and large intestine by typhoid bacilli taken into the alimentary tract with food or water. The stools, urine, vomit and sputum of the typhoid patient should be thoroughly disinfected with an efficient agent; towels, napkins, bed-linen, and all clothing used by patients disinfected thoroughly before being laundered. Drinking water to be boiled All contamination from food by flies, etc, to be avoided.

4. What is the difference between a contagious and infectious disease?

An infectious disease is one which is due to a specific and pathological microorganism which grows and multiplies in the body, elaborating a biologic poison. A contagious disease is one which is communicable through the air or atmosphere, and does not necessarily require contact with infected patients or matter.

5. What is the distinction between sewer-gas and sewer-air? What gives sewer-gas its peculiar odor?

Sewer-gas is a mixture of gases—CO, CO_2, NH_3, H_2S—generally resulting from decomposition of animal and vegetable substances. The characteristic odor is caused by the hydrogen sulphide and ammonium. Sewer-air is a mixture of sewer-gas and air after emanating from the sewer.

SURGERY

1. What are the indications for amputation in gangrene of an extremity?

In dry gangrene, the general rule is to wait for a line of demarcation, and then amputate high up; but in senile gangrene, if the patient is exhausted or sepsis ensues, the amputation should be done at once, and high up, without waiting for the line of demarcation. In moist gangrene, after the formation of the line of demarcation, amputate high up. In traumatic gangrene, if spreading, amputate at once, and high up without waiting for a line of demarcation.

2. What are the signals of danger in general anesthesia?

Lividity or extreme pallor of the face, (2) feeble, irregular or intermittent pulse, (3) slow and shallow respiration, (4) dilatation of the pupils during deep narcosis.

3. Give the cause and treatment of painful cicatrix, adherent cicatrix, contracted cicatrix, and exuberant cicatrix.

Painful cicatrix is caused by the pressure of a contracting cicatrix upon the cut end of a nerve in the scar of an amputation-stump. In the former case the painful part should be excised; in the latter, the stump must be opened and the end of the affected nerve removed.

Adherent cicatrix is caused by simultaneous injury (such as burns or scalds) to contiguous and approximated parts, such as the fingers or the pinna and the side of the head. A plastic operation is indicated.

Contracted cicatrix is most apt to occur in the flexure of a joint; a serious burn of the hand may cause flexion-contracture of the fingers. The treatment is to divide the cicatrix, dissect out the scar, and follow with skin grafting.

Exuberant cicatrix consists of a hyperplasia of scar-tissue. It is most often found in tuberculous patients, and is of unknown etiology. Excision is useless, as it is very apt to recur. Sometimes it disappears spontaneously.

4. Mention the most common sites of epitheliomata.

On the skin, mucous membranes, or at the junction of skin and mucous surfaces; lip, ala of nose, glans penis, cervix uteri, eyelid. The cylindrical-celled epithelioma is more likely to occur in the stomach, the rectum, and uterus.

5. Give classification of asphyxia.

Livida, blue; pallida, pale.

6 Classify aneurism. What is its predisposing and exciting causes and the usual locations?

An aneurism is a sac formed by the walls of an artery and filled with blood. The predisposing causes are: arteriosclerosis, violent muscular exertion, straining, increased arterial tension, sudden emotion. The aorta is most commonly affected, especially the transverse aorta. Aneurisms are classified into circoid, sacculated, dissecting, splindle-form.

7. Give the principal methods of abdominal drainage with which you are familiar, also what method you consider best.

Gauze, rubber tubing, glass tubing, strands of gut, horsehair or silk. For blood and serum, capillary drainage along a strip of gauze is considered best. For pus, the tubes are considered better. Surgeons have different methods preferred but most surgeons prefer the vaginal if it is a pelvic disorder, otherwise the lowest point and gauze drain.

8. What important tissues may be wounded accidentally during an operation for femoral hernia?

The obturator artery, if abnormal. The deep epigastric artery. The spermatic cord, in the male, the round ligament in the female. The round ligament in the female is not of so much surgical importance, but if the spermatic cord is cut the vas deferens and spermatic artery are also severed. (The iliohypogastric nerve may be severed. The femoral artery, vein, and anterior crural nerve are of greatest importance.

9. Name and describe four forms of talipes.

Talipes varus, in which the inner edge of the foot is drawn up, the anterior two-thirds twisted inwards, and outer edge rests on the ground.

Talipes valgus, in which the outer edge of the foot is drawn upwards, and the inner side of the foot and ankle rest on the ground. This condition is the opposite of talipes varus.

Talipes equinus, in which the heel is raised and cannot be brought to the ground. Patient walks on his toes and distal ends of the metatarsal bones.

Talipes calcareous, in which the toes are raised, heel is depressed, patient walks on his heel, toes cannot be brought to the ground. There are many variations of these deformities.

10. Give briefly Cohnheim's theory as to the origin of tumors.

Cohnheim's theory, that of embryonic remains, was that, owing to some slight developmental errors, small portions of embryonic tissue become misplaced and surrounded by cells belonging to a different blastodermic layer. These misplaced cells lie dormant but still alive. Later, traumatism or some other form of irritation acts as a stimulus and starts them proliferate, and the result is a tumor.

JUST AMONG FRIENDS

A Department of Good Medicine and Good Cheer
for the Wayfaring Doctor

Conducted by GEORGE F. BUTLER, A. M., M. D.

EDITORIAL INTRODUCTION.—Last month we brought to a close the "Clinical Medicine Post-Graduate School of Therapeutics," which has been running in these pages for several years. The ground which we originally planned to cover has been nearly all gone over, and hundreds have written us that they have enjoyed and been benefited by the practical studies in therapy which have been presented. The completion of this work leaves the Director of the Post-Graduate course, Dr. Butler, free to undertake something else, which, we trust, will be of equal interest to our friends of the "family." This is the Department, "Just Among Friends," the first installment of which is now presented. He will write this himself, but he hopes that any who read it will feel free to write him, either in criticism or praise. Some of these contributed comments will doubtless be printed in this or other departments. With the hope that you will enjoy "Just Among Friends," as they have enjoyed this, the first installment, the editors present this Department to the readers of Clinical Medicine.

ABOUT twenty-five years ago I assisted in the organization of a "Therapeutic Club," limited to twenty doctors, in my neighborhood. We met informally, as we still meet, once a month, at each others' homes, and, sitting around the table in the evening after office hours and the strenuous labor of the day, we drank coffee, Apollinaris, and malted milk, partook of some simple food and talked over in a perfectly informal way the treatment of disease, gave our experiences during the month and then, before parting for the night devoted more or less time to the discussion of subjects entirely foreign to medicine. Sometimes we had music, sometimes readings, for some of our members knew something besides medicine, were versatile and talented, possessing more than ordinary ability in music, art, literature, etc. But we never played cards. And the versatile ones were among our best doctors, too!

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In this day and age a doctor should be broadly educated, liberal minded, skilled and interested in matters outside of his own sphere of work. Not only in the treatment of nervous and mental diseases, but in the treatment of many other diseases, there is the question of the patient's mental background, the unconscious standpoint that our patient occupies, and with which so far as possible, our remarks and attitude should harmonize until we are able by degrees to change it. And to do this, the figures, the language, and arguments we use must fit in to some extent with the scenery of his thoughts, with the psychical plane on which he moves; in a word, our mental scenery should be large and capable of being readily shifted at will to suit the figures that move on the mental stage of our patient's minds.

We should not encourage the vulgar prejudices against subjects such as sociology, history, philosophy, poetry, etc., that have no apparent association with medical science—inquiries which constitute the charm of life, and exercise a powerful influence upon the intellectual progress of nations, the civilization of the world, and the character, happiness, and destiny of man.

In reviewing my medical life tonight, I feel that I derived more real benefit from the meetings of the old "Therapeutic Club" than from my attendance on all the Medical Societies I ever have belonged to.

These informal discussions of medicine, of literature, art, and music, of philosophy of natural science, sociologic questions,

and of life generally, broadened my mind, and, I firmly believe, helped me in my profession.

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In taking charge of this department, I shall try to follow the plan followed for so many years in the "Therapeutic Club." I shall yield to my moods, writing to you just as the spirit moves, just as I would talk to you were we smoking our pipes and chatting together in the seclusion of our home, after the day's work was done. You, Doctor, know what comfort and satisfaction there is in sitting down for an evening's chat with a brother doctor, who has been your life-long friend, giving your experiences, your confidences—baring your soul if need be. Now that is what I am going to do in these columns, and we'll say a few words at first about some practical therapeutic points that I have learned by experience, matters that occur to me as I write.

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One of the chief causes of diseases in my opinion, is the clogging of the avenues of the body by the wear and tear of the human machinery and the retention, mechanically or otherwise, of some material that should be cast off. The wear and tear of the human machinery furnishes a fit medium for the cultivation of different species of germ life. The longer it is allowed to clog the various avenues the more will these minute beings multiply and produce a still further clogging of the system. The more the system is clogged the more impure the blood current becomes, and the more the circulation is burdened with waste matter; the greater the efforts put forth by the vital force to control the general interests of the body, the more rapid will be the circulation and the higher the temperature. The process of cure is the opposite. Cleanse all the avenues, tone the organs into the performance of their various functions. As Abbott says, "Clean out, clean up and keep clean" and then "take up the slack." Of one thing there can be little doubt, and that is that there are some germs which produce disease but not without favorable existing conditions for propagation. Germs only interfere with those persons who are in the proper condition to receive them, or to place themselves in proper relation to become infected. Keep well by keeping all the emunctories free from waste matter. In this connection don't forget the laxative saline, calomel and podophyllin.

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The majority of doctors find the treatment of chronic diseases a stumbling block in the way of reputation and financial success. The reason is that they follow a routine method or some fad, instead of going about their work systematically, picking out and applying correct principles, making a definite plan and adhering to it persistently. The three cardinal factors in the treatment of chronic diseases are: *rest, fasting*, and *appropriate drug treatment*. Of course these must be applied with judgment. Rest for instance does not mean that a man should drop his work, go home, pull off his shoes climb into bed and remain on his back indefinitely. He may need rest in bed or in a hammock with cool breezes playing about. He may need rest from whisky, heavy dinners, mental excitement, rest for the overworked stomach, the paralyzed bowels, rest for the nervous heart and strained nerves. The brain may become tired in a variety of ways. Lying down perfectly still and for very short intervals is a very good way to rest the heart, brain and nerves, and will pull one together in an astonishing way, and as a daily practice undoubtedly prolongs one's life.

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In chronic diseases nutrition is abnormal, waste is not promptly and properly eliminated; it accumulates, the system does not reduce its products to their lowest terms, causing friction and making the work of elimination all the harder. It is a great mistake to add further to the difficulty by giving more and more food to patients in whom the process of nutrition stagnates. Food will not be transformed into nourishing red blood unless the system needs it and there is appetite for it. Fasting rests the heart, making its work easier; rests the stomach and bowels, enabling them to store up secretory and peristaltic power; lowers blood pressure, flushing the area of

elimination; increases the consumption of water, softens and relaxes the entire body so that the work of "cleaning up" can proceed with greater rapidity and the least expenditure of vital force. Fasting may be absolute for one day or for several days; it may be partial, from abstaining from one meal or two meals, or by using a very light diet. We should always avoid extremes and hobbies, making successful experience the sole judge of the value of our methods, and be prepared to discard them for others if unfavorable symptoms develop.

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In regard to the choice of drugs, eliminants such as I have mentioned, and sometimes alteratives are indicated in all chronic diseases, and the preparations used must be reliable. Bad drugs and a want of perseverance in their use are responsible for many failures in treatment. You must have good medicines and make the patient understand he will have to take them faithfully and for a long time in order to get well. The alternation of remedies is important in the treatment of chronic diseases. Any one drug, no matter how good a remedy it is, will wear out. It is a good plan to alternate the eliminant and the alterative, the one increasing nutrition and therefore waste, the other increasing the system's ability to dispose of this waste. Hence renovation and reconstruction go hand in hand.

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Often distressing or excessive palpitation of the heart can be arrested by bending double, the head down and hands hanging so as to produce a temporary congestion of the upper portion of the body. In nearly every instance of nervous anemic palpitation the heart immediately resumes its normal function by this exercise. Do not forget, however, in palpitation of the heart to examine the urine and see that proper elimination is going on; and by all means remember that cactin is of value in functional derangements of the heart.

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Hot physiological salt solution is one of the best applications to ulcers of the leg. Hot salt solution has a physiologic effect on the tissues, exciting phagocytosis and at, say, 58° C. is fatal to some bacteria, though not to their spores. The ulcer is best irrigated with a hot solution for a quarter of an hour and a sterilized dressing (gauze or cotton-wool) and a bandage is then applied. This is done daily until the ulcer cleans, then as often as necessary. Healing proceeds rapidly and this is especially suitable for patients who cannot afford the time to lie in bed. But don't forget the internal treatment—keeping the bowels open and the system clean.

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How much trouble doctors have with their cases of dysmenorrhea! Preparations of viburnum and helonias, as well as gin and other "remedies," often fail to relieve many of these cases. When you get a case of dysmenorrhea which cannot be relieved by the employment of all rational means, apply a 4-percent solution of cocaine to the mucous membrane of the *nose* and notice how quickly your patient will be relieved.

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Here is another therapeutic trick, this time for incontinence of urine in women, dependent upon relaxation of the sphincter urethræ? Massage! This is applied by introducing into the urethra a medium-sized metallic urethral sound and rapidly but gently stretching the urethra by a series of rotary movements. This should be done for a minute or two each day. A few weeks of this treatment will often accomplish the desired results.

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One of the best treatments for delirium tremens is lavage of the stomach. After a tepid bath of short duration and a simple purgative enema, wash out the stomach with lime water diluted with ordinary water or a solution of sodium bicarbonate. Continue this, washing until the fluid is returned from the stomach quite limpid. Put the patient to bed and give 1-67 grain of strychnine arsenate or strychnine nitrate, with 1-12 grain of morphine. Sleep is soon established, on waking from which the phenomena of delirium are usually gone.

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What do you say to dropping the subject of medicine for a bit? Don't you ever get tired of the ceaseless medical grind of complaining, peevish, sick people and of med-

ical talk? Well, I do. I sometimes feel I should like to go back to protoplasm. Tonight I wish I were a barnacle on a South Sea Island rock where the full Pacific tides could wash over me, and the southern suns steep me in infinite calms of laziness. Give me the rest that lurks in the autumn fields and shadow-haunted woods, and you may take my place at the hospital and the college. Doctor, a September day with God, listening to the musical murmurs of the forest will strengthen you for many a day's struggle in town!

If I were a bird I'd fly to some forest so vast and deep that even the flutter of a falling leaf could be heard for miles in the still air, and there I'd build me a nest of silence, drink sunshine for wine, and never grow old. And when death came I would have no funeral, nor crepe, nor mourning friends, nor outdoor parade of hearse and followers, but I'd simply die and be done with it, as "morning changes into noon."

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Don't you feel like resting a bit, like calling out to the mad procession to stop? For my part I would like to slow up for a while. I see doctors all about me growing gray. I see the babies I brought into the world wheeling perambulators for their own little "bald-headed tyrants," and it strikes me that I am getting along past the middle mile post. The calendars don't seem to be so reliable as they used to be. The seasons are constant, but they are in a greater hurry. Spring used to take off her things and sit awhile; now she only stops to throw a bunch of lilacs in at the window and flits away. Summer and autumn used to make themselves at home and linger long and pleasantly, but of late years the former weaves a garland which is hardly finished before the latter breathes upon it and it drops to pieces. As for winter, he barely takes time to show us his ermine and laces before he is summoned back to the land of nowhere.

A few words spoken lightly by the tongue of slander, a significant expression of the eyes, a cruel shrug of the shoulders, with a pursing of the lips, and then friendly hands grow cold, the accustomed smile is replaced by a sneer, and one stands alone and aloof with a dazed feeling of wonder at the vague, intangible something that has caused it all.

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So let us say no unkind word about another doctor or another man, nor worry about our detractors. There is one who understands us and knows us as we are.

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"Our censors guard us roundabout
And hedge us with their dusty creeds;
They cry us wrong in hope or doubt
And howl like mad dogs at our deeds.
They wail our knotted skein of life,
And flout us for our clumsy hands,
Because with tangles it is rife—
But all the time God iunderstands.

"Our censors measure step and stride
With mathematic rod and rule,
And when we wander to one side
Straightway they cry aloud, 'Thou fool!'
And book and bell and candle bring
To curse the one who halting stands,
But ah! the footsteps wandering—
He understands—He understands.

"Our censors weigh our every word
And sift its sound for sign of sin
And whispered dreams that are unheard
Against the screen of fate they pin;
With happy smile they search our brain
To bind our thoughts with brazen bands,
And hope shall struggle not in vain,
And all the time God understands.

"He understands our little fears,
Our little doubts and little woes,
And in the shadows of the years
He sees the soul. He knows—He knows;
He scans us, not as censors do—
To mark the blindly searching hands—
But all our good he brings to view,
He understands—He understands."

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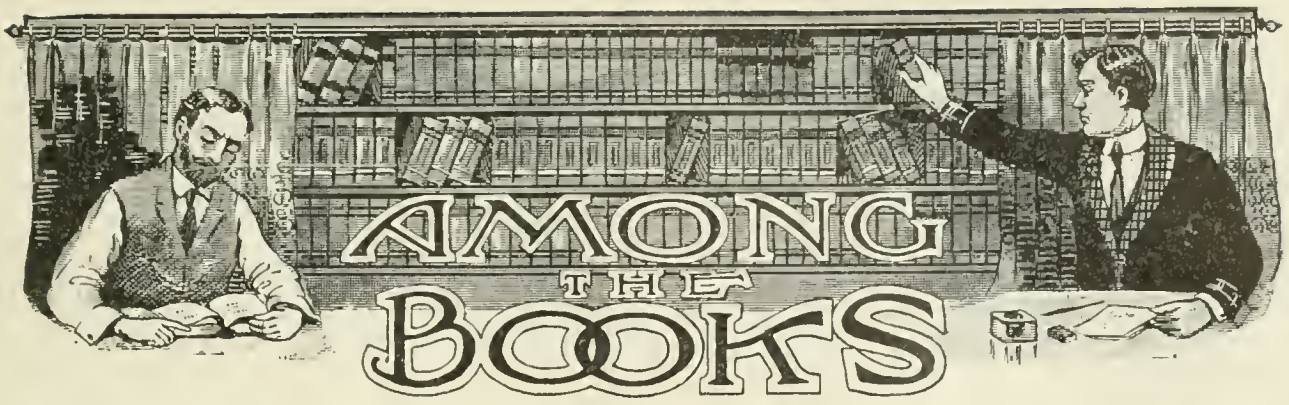
Let us as doctors preach the gospel of cheerfulness, self-confidence, optimism, and cultivate comradeship—fraternalism. When you come to look life fairly and squarely in the face what does it all amount to as regards oneself: food, clothing, the necessities for the continuance of life, that is about all any of us gets. We are all traveling the same weary road, footsore, tired, some more heavily burdened than others, all going down the hill of life, with steady or unsteady steps, fast or slow, and at the foot of the declivity there is waiting for us, all alike, the open grave, in which we must calmly take our place. We are here today, at the foot of the hill tomorrow and then the little mound, and the next day we rot—and how soon forgotten.



NEW EDITION OF THE W-A "ALKALOIDAL THERAPEUTICS"

A Text-Book of Alkaloidal Therapeutics. Third edition . Revised and Enlarged. By W. F. Waugh, M. D., and W. C. Abbott, M. D. Chicago: The Abbott Press. Octavo, 765 pages. Price, cloth, $5.00 net.

Since the first edition of this work appeared the progress in therapeutics has been great. In every department there has been good work done, with corresponding results. At the outset, the authors of this volume took the ground that the therapeutics of the active principles did not constitute a complete system or embrace the whole field. Being but a part, it did not justify the creation of a separate school or sect in medicine, but could only continue to live and develop so long as it remained attached to the parent stem. This has been verified by the gradual attenuation of the dosimetric movement in Europe. The journals established in various countries have died out, the central one in Paris has shrunk; the movement has spent itself. All there was to say anent the alkaloids has been said, over and over, and no new developments have been made to sustain the interest. Burggraeve and his strong supporters are dead, and their successors do little except to go over the tailings and extract a few grains of pure metal that escaped their predecessors.

Here in America matters are different. Those who first recognized the great importance of the alkaloids also saw that these agents formed only a part of therapeutics, and that the interests of the patient must suffer from any attempt to make a part serve for the whole and to shut out other useful expedients. Moreover, there can be no normal, healthy development of therapeutics except as a part of the general professional advance.

Our judgment has been vindicated by the results. The use of the active principles and pure chemicals, given singly, with definite purpose, or combined with distinct intention, has progressed in the body of the profession until it is becoming a habit. Men are rapidly learning the advantages of applying therapeutic certainties to meet distinctly comprehended conditions. The old, set shotgun prescription is becoming obsolete. Nearly half the physicians of America are in touch with the "alkaloidal group," and the number increases apace.

The present volume is nearly double the size of its predecessor. Many books, innumerable journals, monographs, and other publications have been searched, to bring to light every smallest bit of information that seemed likely to be of use to the doctor in caring for his patient. A wealth of clinical reports has been uncovered, in French, Italian, Spanish, and in other journals, to all intents lost to all but their immediate readers; and these have been collected, compared, and consolidated into compact and convenient forms for reference. The labor involved has been great, but it has been indeed a labor of love, and the pleasure of presenting this valuable material to their colleagues fully compensated the authors for "long days of labor, and nights devoid of ease."

Comparing this with the first edition, we are surprised that there should be so few statements in the latter which time has proved erroneous. The changes are almost all in the addition of new material. But too many of the gaps then revealed in our knowledge of the action of drugs remain

still unfilled. Too many matters then involved in controversy are still in the same uncertain state. We sorely need to have important points settled, points that should have been settled long ago, and might have been, had our friends but done their share. Most of these can only be decided by experience—it is the clinician, not the laboratory worker, whose aid we need.

The authors of this book come in touch with 60,000 physicians, embracing the majority of the active general practitioners of America. Were each of them to make careful observations as to the action of remedies, record them, and report to us, we could settle any moot point in therapeutics by this gigantic collective investigation. The trouble is, they don't know just how to go about it. Say, "scientific observation," and one begins straightway to think of the cost of sphygmographs, manometers, x-ray outfits, and that sort of thing. But, see here, we want to know whether people saturated with calx sulphurata will be attacked by mosquitoes and infected with malaria. Can't you try it? Won't you? Just give anybody—yourself—five grains of the drug daily and note results. You don't need a manometer to tell whether a mosquito bites you.

We don't want you to do it all, but to do what you conveniently can. But if each of you does that, we shall give this old world such a hunch as will make her axles squeak.

"LITORA ALIENA"

Litora Aliena. W. M. Leonard, publisher, Boston. Octavo, 78 pages. Price 50 cents.

I doubt if anybody enjoys his vacation as does the doctor. And for that very reason, when one of our guild does take the trouble to put into type the impressions derived from his pilgrimage in foreign lands, we appreciate his escape from the grind and his privilege in throwing off the cares of the profession as nobody else can do. That is the reason, probably, that the series of letters which recently appeared in *The Boston Medical and Surgical Journal* proved so charming. We are glad that they have been republished in their present form, and commend them to our readers as well repaying the small price asked for them.

It is instructive, and amusing perhaps, to note how in his early days the author could not forget he was a doctor, hence devoted himself to clinics and hospitals, but by and by the smell of the drug-room seems to have been shaken off, and in the latter part he devoted himself more exclusively to the pleasure of sight-seeing and of conjuring among their once familiar localities, the ancient days of King Arthur and his table round; and of the other historic events which merry England has witnessed.

HEINEMANN'S "BACTERIOLOGY"

A Laboratory Guide in Bacteriology. For the Use of Students, Teachers and Practitioners. Second Edition. By Paul G. Heinemann, Ph.D. Chicago: The University of Chicago Press. 1911. Price, postpaid, $1.59.

This is an ideal volume in every respect for the laboratory worker in bacteriology. It is concise, yet complete in every detail, and thoroughly modern. It is a credit to its author, who, however, needs no introduction to laboratory workers in bacteriology, as his frequent contributions to this important branch of biological science are of rare value. All the modern and improved methods are described in a clear, finished manner. The literary style also is such as to make this ordinarily dry subject most interesting reading.

This book is recommended, not only to medical students who, owing to the multitude of other subjects to be mastered, desire to acquire a knowledge of laboratory methods in bacteriology in the shortest possible time, but also to the general practitioner who wishes to be up-to-date on modern laboratory methods in bacteriology or desires to acquire a knowledge of new methods. Of the many similar excellent works on the market, we know of none that so thoroughly and completely covers the subject-matter in so concise and clear a manner and in such a way as to be

readily understood even by those having no intimate knowledge of the subject.

J. F. Biehn.

"AMERICAN PRACTICE OF SURGERY"

American practice of Surgery. A Complete System of the Science and Art of Surgery, by Representative Surgeons of the United States and Canada. Editors: Joseph E. Bryant, M. D., LL.D., and Albert H. Buck, M. D. Complete in 8 volumes. Profusely Illustrated. Volume 8. New York: Wm. Wood & Co. 1911. Price, cloth, $7.00.

The volume before us, which completes this monumental work on surgery, deals with the regional surgery of the thorax, exclusive of heart and esophagus, of the spleen, kidneys, pancreas, the hepatic organs, urinary and genital organs. It contains several chapters on the medico-legal aspect of surgery, on the relation of hospitals to surgery, on military surgery, naval surgery, railroad surgery, and concludes with a complete index of the entire work.

This system, the bringing out of which has required five years, is sufficiently well known so that it does not demand, at this time, a detailed discussion, and the fortunate subscribers, we are sure, will be glad to have the complete work finally on their shelves. Any physician who is interested in surgery will find in these eight magnificent volumes an enormous amount of information presented by the foremost American surgeons and teachers.

WITTHAUS AND BECKER'S "MEDICAL JURISPRUDENCE AND TOXICOLOGY

Medical Jurisprudence, Forensic Medicine and Toxicology. By R. A. Witthaus, A. M., M. D., and Tracy C. Becker, A. B., LL.B. Second Edition. Volume IV. New York: Wm. Wood & Co. 1911. The price of this volume, sold separately, is $7.00, in cloth; $8.00, in brown sheep. The price of the set of four volumes is $24.00, in cloth; $28.00, in sheep.

The last volume of this authoritative work on medical jurisprudence covers the very interesting subject of toxicology, written by Dr. Witthaus, who has devoted the greater part of his life to the study of chemistry and poisons, and to the art of the detection of the latter, so that he is probably better qualified than any one else to speak authoritatively on this subject. The various poisons are described in great detail, not only as to their action upon the organism, but the tests for their detection are also given.

The style of the book is remarkably interesting and the subject, though somewhat dry in itself, gains by being treated historically and by being illustrated with numerous references and cases in point, most of the *causes célèbres* being included in the description of the various poisons.

NEUBURGER'S "HISTORY OF MEDICINE"

History of Medicine. By Dr. Max Neuburger. Translated by Ernest Playfair, M. B., M. R. C. P. In two volumes. Oxford Medical Publications. New York: Oxford University Press. 1910. Price $9.00.

The Bookworm had the privilege, some time ago, of examining and using the beautiful encyclopedic work on the history of medicine, designed by the late Professor Puschmann and carried out by Dr. Neuburger, Professor of Medical History in the Imperial University of Vienna, in association with Professor Pagel of Berlin. Because of his knowledge of that large work, the reviewer was greatly pleased to learn of a smaller work by Neuburger, and its translation into English is a source of gratification.

The first volume, now before the writer, contains an introduction by Dr. Osler, whose views on the importance of historical study are well known. The text deals with the history of the medicine of the East and of that of Classic Antiquity and the Middle Ages. We wish to assure our readers, from our personal experience, that the study of medical history is by no means only a hobby and a pastime, but that it enables us to appreciate and understand the better the acquirements of modern

researches. The present work is an unusually meritorious one and should be read and studied widely.

Like all the "Oxford" medical publications, this book is beautifully gotten up. The type is particularly clear, owing to the use of a dull-white paper, the latter of very light weight, so that the large volume is easily handled.

EAGER'S "COURTSHIP UNDER CONTRACT"

Courtship Under Contract; The Science of Selection. A Tale of Woman's Emancipation. By James Henry Lovell Eager. New York: The Health-Culture Company. 1910. Duodecimo, pp. 450. Price, cloth, $1.20 net.

That there is "something rotten" in the manner in which the marriage relation is played fast and loose with in our wonderful advance of civilization there can be no gainsaying. More, the "marrying in haste and repenting at leisure" is as old as humanity. But we admit that in our present socioeconomic conditions, the evils of ill-considered marriage and of reckless divorce are painfully accentuated. Yet, not one of the remedies proposed, whether they may lean to free-love or trial-marriage or what not, has offered an acceptable solution, because they all were obnoxious to our sense of the fitness of things.

In the present novel, the author proposes a further remedy in the form of courtship under contract. The heroine enters into a contract with her wooer, with the full approval of her family, according to which they are to live together as husband and wife, in all except the sexual relations, for a space of six months. The woman is to remain full mistress of her person and to occupy a separate bedroom, but otherwise the companionship is as close as possible. This contract is published under the marriage notices and arouses the greatest interest. After several months the heroine makes use of the right granted to both parties in the contract and terminates it, because she finds that she does not love her fiancé sufficiently to spend her life with him.

It is fortunate for the young lady that both she and her foster parents occupy an assured position and enjoy a high reputation for probity. Otherwise—and in actual life almost certainly—she would have been ostracized, with our usual want of charity.

While the problem dealt with in the story and the solution offered is interesting, we doubt whether it would be practicable. Our young ladies are not such cool-headed and fish-blooded prigs as Mona, the heroine, appears to be, and few young men could probably withstand the temptation of constant close companionship without making desperate attempts to obtain full possession of their fiancées.

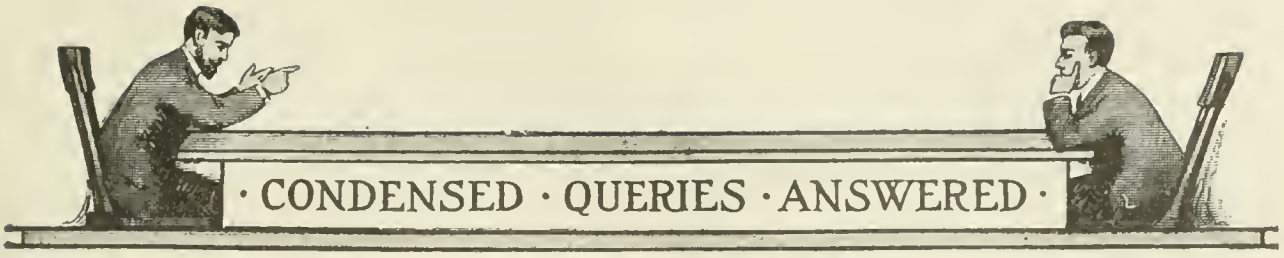
The book is written in an earnest and persuasive style, which unfortunately could not remain free from preaching. It is somewhat disturbing to find a charming young lady of nineteen with the mentality of an old professor of social economy, but we realize the difficulties under which the author labored and will not criticize too sharply.

CORNER'S "MALE DISEASE"

Male Diseases in General Practice. An Introduction to Andrology. By Edred M. Corner, M. A., B. Sc. London: The Oxford University Press. 1910. Price $6.00.

The author insists upon the need of a science of the diseases of men, which might be designated as andrology, in correspondence with the analogous gynecology, because "men are, without doubt, carriers and transmitters, often unconsciously, of venereal infection into their own homes." The results of venereal disease in the male, therefore, would properly form an important part in the proposed science, which, like its counterpart gynecology, is an offspring of general surgery; with this difference, that gynecology has passed through the intermediate stage of obstetric surgery from which it has divorced itself.

The volume treats, as may be supposed, of the pathology and treatment of diseases of the male genital organs. Both congenital and acquired conditions are fully discussed.



PLEASE NOTE

While the editors make replies to these queries as they are able, they are very far from wishing to monopolize the stage and would be pleased to hear from any reader who can furnish further and better information. Moreover, we would urge those seeking advice to report the results, whether good or bad. In all cases please give the number of the query when writing anything concerning it. Positively no attention paid to anonymous letters.

ANSWERS TO QUERIES

Answer to Query 5714.—"Shock-Bath for Brachial Neuritis." The best thing I have used for acute neuritis is the shock-bath. One application relieves the pain better than morphine, and its continuous use cures, provided the cause of the neuritis does not continue to act.

The shock-bath consists in alternate applications of dry heat and cold. A hot flatiron and a lump of ice are all the apparatus necessary. The iron should be applied over a piece of dry flannel. After passing it up and down the course of the affected nerve two or three times, apply the ice to the bare skin in the same way, and wipe rapidly. Repeat the process for ten or fifteen minutes, according to the reaction. The treatment should be given from twice a day to twice a week, according to indications.

I do not recommend this procedure for rheumatism, neuralgia or myalgia, but in true neuritis it seems to be a specific. Probably it would not now be beneficial in the case related, except to relieve the "rain-pains." I would suggest pushing antirheumatic treatment (unless another cause is demonstrated), with application of hot air to the affected arm, hand and shoulder, followed by thorough petrissage of the same area, finishing with centripetal effleurage.

If the lost motion is due to false ankylosis, the remedy is passive Swedish movements. If it is due to paralysis, galvanism or the sinusoidal current to the supraspinatus and deltoid and to the muscles of the forearm.

Chas. F. Morrison.

Klamath Agency, Ore.

Answer To Query 5714. "Brachial Neuritis." Vibration for Brachial Neuritis. Brachial neuritis is one of the troubles I have been very much interested in, and one which I soon relieve with the vibrator and leucodescent light. From the description of the doctor's treatment, he has missed the vital point. He should use deep vibration at a point behind the collar-bone over the brachial plexus, every other day. That will cure both shoulder and arm, also hand pains as well. Generally the harder and firmer the pressure of the vibrator, the sooner the pains get well.

J. W. Arnold.

Columbus, Ind.

Answer to Query 5716, July number. —"Is Calomel Harmful?" I have a word to say to calomel kickers. I will first say I am an advocate of, and don't see how I could practise medicine without, it. In my thirty-one years of practice I have never seen a child under five years of age salivated or have a sore mouth from calomel; have never seen salivation during any age that could not be cured up in three days. When I commenced practice 10 grains was the average dose, and now the average dose is about 1-100th part of that. Twenty-five years or more ago I was also engaged in the drug business at the county seat of Carter County, Kentucky. In that town lived an old man about 65 years of age. He came to my store often to purchase calomel, and in large quantities. I asked him one day how he made use of so much calomel. His reply was, "I take it myself." I next asked, "How much do you take at a

dose?" His reply was, "About a teaspoon level full." I again asked, "How often do you take such doses?" His reply was, "Once a week, and sometimes twice." I could not believe him, so I asked his wife about it. She informed me that he had not misrepresented. I explained to the old gentleman that 10 grains would do him as much good as a teaspoonful, but he was not ready for the explanation and kept up his regular dose as long as I lived in that town, about five years.

Now, I suppose some of these calomel knockers will say, "That fellow is a kin to Ananias." However, Uncle Sam has honored me with three government positions in my time and I am not a Republican either. Furthermore, I have been in the employ of the C. & O. Railway as a surgeon for fifteen years. I am only stating these facts to show you that I am not an amateur in the medical profession.

A. F. Hill.

Chattanooga, Tenn.

QUERIES

Query 5727.—"Mammary Fistula." J. O. W., California, recently delivered a woman, aged 24, of a boy baby, after a tedious labor (completed with forceps) of fifteen hours. No accident or bad after-effect occurred. All went well for about ten days, when a large lump appeared in the axillary border and right lower segment of the left breast; this had been preceded by cracked nipples, which seriously interfered with nursing. After exhausting all usual remedies to dissipate the swelling, about the twentieth day after delivery a large abscess was evacuated by incision just below and to the right of the nipple. A quantity of purulent fluid mingled with what appeared to be soured milk and detritus of areolar tissue was discharged, whereupon the fever and all pain disappeared. Later, the right breast took on the same conditions, though not so extensively, and a small superficial opening through the skin at the lower border gave immediate relief. During all this time the babe has been nursed at the right breast, besides receiving artificial feeding.

A "strange feature is the great quantity of what certainly is decomposed milk which continues to flow steadily from the wound in the left breast", yet no secretion manifests itself at the nipple in this breast. The doctor asks: "Can it be that this is truly milk, flowing from ruptured lacteal ducts? If so, how can I remedy the trouble? The wound seems to be healing nicely from the bottom, a drain being kept in it for five days. There was little or no blood drawn by the incision (none since), which was only through the skin and areolar tissue. Should I continue to permit the nursing of the child at the breast or dry up both breasts?"

We regret to say that it is impossible for you to do anything further than you are now doing, that is, heal up the wound from the bottom. We gather (perhaps erroneously) that the incision was made in the wrong direction and that the lacteal ducts were severed. As you, of course, know, in mammary operations, the incisions should radiate from the nipple. Very great care must be taken when the deeper tissues are reached.

We question the advisability of drying up the milk supply. Keep the parts scrupulously clean; give nuclein and echinacea internally, and apply to the affected breast compresses wrung out of a dilution of echinacea and thuja. Gentle elastic pressure should be maintained.

We wish we were able to aid you more effectively, doctor, but a most unfortunate condition obtains and, as already pointed out, the wisest thing to do is to secure granulation. It is possible that this breast will never again functionate normally. Should the woman bear another child, prepare the breasts carefully before delivery.

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Query 5728.—"Enuresis Diurna. Menorrhagia." V. S. E., Canada, is treating two cases that have "gone the rounds" and he would like assistance.

1. Patient, a widow and mother, age 57, of nervous temperament and sedentary habits, weighs about 160 pounds and is in fair general health. For the last twenty-odd years she has been troubled with enuresis when walking on a level surface; rarely troubled when going up or down hill, and never when sitting or in bed. Sometimes it occurs when coughing or sneezing, but which is rarely the case. The condition is worse when the rectum is full or when her nerves are unbalanced from excitement. Occasionally she is better for a few days, without any observable reason.

The urine contains oxalates. Uric-acid crystals and indican were found, as well as a few pus-cells. The reaction is generally slightly acid. The specific gravity ranged from 1026 to 1013—quantity about 48 ounces. No sugar or albumin were found. No calculi could be discovered. The sphincter ani is rather tight. The woman has been examined and treated by doctors galore, without benefit, and in several cases was made worse. Her tissues seem flabby and she is pale. The doctor is now giving her Blaud's pill compound, and strychnine. Has kept bowels clear and clean, also, with pilocarpine and minute doses of veratrine, together with dieting and plenty of water, has gotten the urine in fairly good condition. Atropine, thuja, and cantharidin have been prescribed till the patient became sick of taking pills. The trouble began about four years after childbirth. There is a slight tear in the perineum, but not sufficient to be regarded as the cause of this trouble.

Now, Doctor, before you can cure enuresis you will have to discover the causative disorder. We note that the woman is of a nervous temperament, autotoxemic, and anemic. We, therefore, first of all should dilate the sphincter ani, then secure thorough elimination and as nearly normal body-chemistry as is possible. The fact that the discharge of urine occurs when the woman is walking upon the level leads us to suspect a vesical polypus or of other body which acts as a "ball-valve" when the body is erect. Weakness of the vesical sphincter is of course a primary cause.

Insist upon plenty of outdoor exercise; also a cool salt sponge-bath two or three times a week. Cantharidin is not likely to prove efficacious in this case. Thuja with hydrastin, strychnine nitrate and delphinine are more likely to prove beneficial. We should also give nuclein in rather large doses, preferably with the phosphates of lime, soda and magnesia, three times a day.

Have you catheterized this woman? See if there is any hyperesthesia or abnormality of the urethra; note also position of uterus. The cause of the trouble may lie there. We should be inclined to irrigate the bladder three or four times with a 2-percent ichthyol solution, or you may use borated calendula. Have the perineal tear repaired even it it be small. Order an abdominal supporter and see that it fits snugly and "lifts upward."

2. "A maiden of twenty-two has membranous dysmenorrhea, but is not willing to undergo an operation. The doctor writes:

"I have been trying sanguinarine, gr. 2-67 four times a day; during intervals, Buckley's formula; gelseminin and cicutine hydrobromide during menstrual week; all with but little success. She expects to marry within a few months. Would childbearing help her, or would she probably be sterile? How would the application of iodine to the endometrium answer? She is fleshy, of nervous temperament and sedentary in her habits. Her general health is good. Can you advise anything except curettement?"

In membranous endometritis we should urge a thorough curettage, this condition rarely yielding to less vigorous treatment. You can, of course, dilate the cervix and apply to the endometrium thymol iodide or iodine and ichthyol in glycerin; but curative results can hardly be expected in a case of this kind. An oophoritis may coexist. A saturated solution of iodine in glycerin has given the writer good results; it should be applied on a cotton-wrapped applicator; strips of gauze saturated with carbenzol are then packed into the fornices and the vagina slightly filled with plain (sterile) gauze.

Internally, calx iodata, ergotin, hamamelin, and hydrastin are perhaps most useful; chromium sulphate also may be tried. However, such positive results follow thorough curettement that it seems a pity to waste time on treatment which is apt to prove unavailing.

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QUERY 5729.—"Cystitis Following Prostatectomy." C. W. H., Oklahoma, has a patient, aged 67, who had his prostate and also a vesical calculus removed at the same operation. He now suffers constantly with a burning sensation in the penis, which can be relieved only by morphine. A chronic cystitis is present, which clears up almost completely by using the general diuretic formula or arbutin. The amount of urine voided is over 30 ounces in the twenty-four hours; specific gravity, 1020; color, straw-yellow. He is continuously passing calculi that are very hard and rough. There seems to be constant spasm in the deep urethra or neck of bladder, so that it is impossible to irrigate the bladder without an anesthetic, which is not desirable on account of an organic heart lesion.

At present glycerin is being used to prevent formation of stones, according to the ideas of the Germans. The man sometimes passes six or eight at a time of about the size of a pea.

Were we in your place, Doctor, we should substitute the combination of hyoscine, morphine and cactin for the plain morphine, using just enough to control the spasm and pain. Do not tell your patient the nature of the medicine.

Of what do the calculi consist? Send some of the concretions and a 4-ounce specimen of urine to the laboratory. Upon receipt of the pathologist's report, we will outline a treatment which will, we think, prove effective.

Formin with lithium or ammonium benzoate, according to acidity or alkalinity of the urine, with laxative salines and arbutin, would seem to be indicated. As a cystitis exists, we presume the urine is alkaline. In that case ammonium benzoate should be given in 5-grain doses, with formin, every three hours. Large quantities of barley water, made as follows, should also be consumed: Soak in water two tablespoonfuls of barley for a few hours or over night. Throw away the water. Then pour on one quart of fresh water and boil continuously for six hours, keeping the quantity up to a quart by adding more water. Strain through coarse, previously boiled, muslin, and preserve in the ice-chest or other cool place.

The bladder should be washed out once or twice a week with a 2-percent ichthyol or 1 : 1000 antinosin solution. Anodyne suppositories containing hyoscyamine and carbenzol (or ichthyol) will prove useful.

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QUERY 5730.—"Prevention of Adhesion." W. C. E., Minnesota, has a patient, 15 years old, who has just undergone appendectomy; there were many adhesions. The doctor asks: "What medicine, internally or externally, would you recommend to prevent their return? Would you advise the use of a vibrator? The patient is naturally strong and his habits are good."

As we glean, adhesions existent before the appendectomy were broken up at the time of the operation. Provided the operation was thorough and normal (nonseptic) conditions obtained thereafter, adhesions are not very apt to form again. Gentle massage or vibration over the affected area and the exhibition of calx iodata or arsenic iodide suggest themselves. If adhesions do form, we should feel disposed to give chromium sulphate internally and a course of thiosinamin hypodermically, provided the abdominal scar is small, so that, if softened, rupture is not to be feared. Maintain normal conditions.

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QUERY 5731.—"Chronic Urethritis. Cellulitis." E. B. D., Ohio, writes: "What can I do for chronic gonorrhea, to stop the discharge, the socalled 'morning drop?' Also what can I do to reduce a mass of inflamed cellular tissue posterior to the womb? Is there any depleting remedy that I can use by the vaginal route? The woman seems well every other way. There is a mass of inflamed tissue in the hollow of the sacrum—just enough to keep up a little fever all the time."

We have mailed you literature outlining the modern treatment of urethritis, specific and nonspecific. This subject is too extensive to be dealt with satisfactorily in the limited space at our disposal here. You might advantageously read Query 5718, in the late July number. Then carefully examine your patient, and if you care to do so, report the exact conditions which obtain, sending to our pathologist at the same time a smear of the urethral discharge. We shall then be in a position to prescribe intelligently.

Any one of several pathologic conditions may cause a persistent gleet—and it is essential to recognize the basal lesion before instituting treatment. For this reason, we hesitate to offer advice in the case of the woman. A salpingitis may have existed and the tube—or even an ovary—be embedded in a mass of adhesions in the cul-de-sac. As there is a persistent temperature, you probably have to deal with a collection of pus, and drainage in such a case would be essential. What is the history, the present condition of the uterus and adnexa, and is there any venereal taint? Examine through vagina and rectum, and describe the pelvic conditions. How long has the condition obtained? What remedial procedures have been tried?

You cannot go far wrong if you use, temporarily, copious antiseptic douches: one teaspoonful of a standard vaginal antiseptic powder to the quart of hot water. Thoroughly dry and cleanse the fornices with pledgets of cotton and then pack lightly with strips of gauze saturated with thymol iodide dissolved in oil. Iodine and glycerin, or glycerin, ichthyhol and iodine may also be used. Application should be made every other day. Wash out the bowel with warm solution of epsom salt. Maintain intestinal activity and cleanliness. Give echinacea, calcium sulphide, and nuclein in rather large doses.

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QUERY 5732.—"The Frequent-Dose Bugaboo Appears Again." E. G. R., Missouri, has one objection to the alkaloids, namely, the method of administration. "We are advised," he says, "to give one or two tablets every fifteen or thirty minutes to effect. How are we going to manage that in the country, where we are from one to twenty miles from our patients and when we have five or six calls like this to make every day. We cannot stay with one patient that long. It is, examine your patient, issue your medicine, give directions, and hurry on to the next patient. If one could formulate dosage so that the medicine could be given every two or three hours, it would be all right and I think many more physicians would use the alkaloids. The patients also object to taking medicine so often. Why not make the doses larger, give farther apart, and still get the desired effect, as we do with quinine, morphine, and strychnine?"

Do not allow frequency of dosage to become a bugaboo. As a matter of fact, only a few of the more active remedies are given at frequent intervals, and then only in acute conditions, that is, where it is desirable to secure action as speedily as possible. In treating most diseases, the active principles and synergistic remedies *are* given three or four times daily, or, in some cases, half-hourly or hourly for four to six doses.

For instance, you are treating a child with measles or any one of the acute infectious diseases. You would order 1-6 to 1-10 grain of calomel with perhaps 1-6 grain of podophyllin half-hourly for four doses in the evening, with a saline laxative the next morning. It is just possible that you would wish to give the mercurial combination at once and follow the last dose with the saline. It is a very simple matter for any adult to attend to such medication, and the results surpass those obtainable by any other method.

The child's temperature is high, and it is desirable to reduce it. We will say the child is 12 years old. You will dissolve 12 granules of aconitine in 24 teaspoonfuls of water, and order a teaspoonful half-hourly or hourly until the skin cools or until the child complains of tingling in the throat and of the tongue. In nine instances out of ten—especially if the bowels are cleaned out, and the body has been sponged with an epsom-salt solution, as it should be—the temperature will fall two to three degrees in four or

six hours. Then ordinary medication is continued, i. e., the indicated remedies are given every two, three or four hours, or one remedy every three hours and another every four, with perhaps, a night-dose of some laxative or a saline laxative in the morning. Many thousand country practicians use the alkaloids daily in this way and obtain results heretofore deemed "impossible". Surely this fact proves beyond question the ease of exhibition.

Moreover, the doctor using the active principles knows that he is administering definitely acting remedial agents. He practises precise therapeutic methods. He does not merely treat named diseases or exhibit compounds of unknown strength and action —some combination of drugs said by someone to be "a specific for" this or that disease. Each granule contains a definitely known quantity of a drug that exerts a positive action, and if the small dose is given at intervals, the desired effect *must* be obtained, provided the diagnosis and selection of remedies are correct. If the doctor has erred in either direction, the physiologic effect of the drug will be manifested before the remedial action. Thus the practician is warned of his error and can revise his medication. This last sentence applies particularly to the more potent alkaloids, for instance, aconitine, veratrine, atropine, gelseminine. If you have a file of CLINICAL MEDICINE, read Query 5558, in the issue for March, 1910.

We think we have demonstrated, doctor, that your conception of the socalled dosimetrist's method is erroneous. As a matter of fact, they do just what you think ought to be done, namely, give the effective dose every two or three hours. Now and again, it is true, a granule is ordered every fifteen to thirty minutes, but the conditions present in such cases are serious and the rapid medication is maintained only for a short time. No human being objects to watching the clock for an hour or two and giving medicine twice in the hour when some loved one is seriously ill, especially if by such medication remedial results can almost invariably be obtained.

The writer himself has practised in the country, and had as many as twelve or even twenty patients under treatment the same day, and day after day, and has yet to experience any difficulty whatever in getting the active principles given in the proper manner. Adults who are not very seriously ill can readily "reach for" and swallow a granule on time, and even small and very sick children take the practically tasteless alkaloidal granules without protest.

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QUERY 5733.—"Hematuria: Possible Vesical Lesion." H. M. B., Nebraska, forwards a specimen of urine and rather incomplete clinical data and asks for diagnosis and treatment. The patient, married woman, complains of pain in the abdomen and when passing urine, also of frequent micturition, blood being constantly present in the urine. The doctor wishes to know where the blood comes from, whether from kidney or bladder, and, in addition to a complete urinary analysis, wants urine to be examined for the tubercle bacillus.

The report of the pathologist shows absence of tubercle bacilli, alkaline reaction, presence of squamous epithelia, amorphous phosphates, triple phosphates, and a moderate amount of blood. It is impossible, from a simple examination of the urine, to say just where the blood comes from. Casts are absent. We are inclined to think that the lesion is in the bladder. In order to be certain upon this latter point, you might inject 10 to 20 grains of potassium iodide in solution into the bladder. Half an hour or an hour afterward, have the patient expectorate into a starch paste containing a little nitric acid. If there is a break in the bladder mucosa, the iodide will be absorbed and excreted in the saliva in from one-half to two hours. The nitric acid will cause the liberation of the iodine and the starch will assume a violet color. Bear in mind, doctor, that there is no absorption whatever from a normal, intact vesical mucosa; hence, no absorption of the iodide and consequent discoloration of the starch paste.

The patient may suffer from a tuberculous kidney. The negative finding in this case is of very little value. We suggest the inoculation of a guinea-pig. The time required for this test is six weeks. Or you may try the Von Pirquet reaction.

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The Gospel of Work

IT has been my good fortune to meet personally some successful men and a good many failures. There isn't much difference between the two as regards ability—nor have I found much variation as to opportunity; yet the reasons for the success of the one variety stuck out all over them like seeds on a strawberry.

1. They wanted something.
2. They knew what they wanted.
3. They determined to get it.
4. They believed they could get it.
5. They took thought as to the best way to get it.
6. They went to work to get it, and kept working, and as fast as they were knocked down they got up and went at it again.

And they won out at last.

The last item is especially important—some men seem to form the habit of being beaten.

It is necessary for the well-being of man that he should be dissatisfied. He must want something he hasn't got, and want it badly enough to be willing to exert himself to the full extent of his powers to get it. And while a man may not be able to lift himself off the ground by pulling at his bootstraps, yet, when by earnest tugging he has lifted himself to a higher level, he will find that he has pulled a section of the world up with him. That's the way humanity makes progress. The contented, unambitious man gravitates toward a level and pulls the world downward with him.

We all want a lot of things: money, ease, power, fame, usefulness, pleasure, experience, knowledge, pie. An early lesson is to decide what we want most, and concentrate upon that our efforts. At first it's pie, until we learn the distinction between the temporary and the permanent. Then it's a girl. Nowadays the modern Jacob rarely has to labor fourteen years for his Rachel. She won't wait for him, but will take up with Esau, or if she really prefers the smooth-skinned type, will coax old Laban around in about fourteen days. But Rachel still likes to feel that Jacob considers her worth fourteen-years' sheep-herding, and she is.

Whatever it may be a man chooses as his one want, he must treat it as the grower of big flowers does—pick off all the others and let everything go to feed the chosen one. So much the more reason one should be thoughtful in making his choice.

The battle is half over when one makes the resolve that he will win. That means that he will try, earnestly, thoughtfully, confidently; and people respect a man

when they realize that he means business. The fellow who gets a job is the one who goes in and claims it. The others ask for it.

The successful man makes his brains work and to direct his hands. Headless work is poor and ineffective work. Napoleon swept up the Neapolitan lazzaroni—the scum of the world—and made of them an army that overturned empires. Mohammed gathered in his hands a wild Asiatic rabble and welded it into a thunderbolt that crushed Greece and Rome, Persia and Egypt, and tore the Orient from its allegiance to the Cross. Brains made of the Kearsarge an ironclad and it won her battle. The same resource was open to the Alabama, but her officers hadn't the brains to avail themselves of it. It is not the best soldiers or the greatest resources that win battles, but the brain that so utilizes the means at hand as to make them win.

After all, it comes down to work. The hardest worker wins out. The man who puts in more and better thought, more time, more labor, takes more pains, wins at the last. Few admit that the cause of their failure was innate. Lack of opportunity, fraud, graft, influence, all these are mere excuses to cover out of sight the real difficulty, the weakness that marred the plans.

Men make their own opportunities; they see them where others fail to look. They foresee difficulties, guard against fraud, and oppose to "pull" that actual worth which no captain of industry dares disregard. The sort who succeed do not let themselves be fooled or overlooked. Were it otherwise, were the world today to be governed solely by graft and pull, it would be time for another deluge.

Each and every one of us may lay this unflattering unction to his soul, that he has gotten in results exactly what he deserves, just what he has earned. People pay us what we are worth. People love us so far as we are lovable. People respect us in so far as we are respectable; in a word, the world forms a fairly correct estimate of us, and values us accordingly. If we are dissatisfied, it is up to us to make ourselves worth more, and to make men know our actual capacities and possibilities.

The clinical therapeutist often gets results by means or methods which are based upon empirical observations without being able to bring forward an exact explanation of how they do good. For the time being we must be content to let his knowledge rest upon his results, and hope that future investigation will explain in a scientific manner the processes in the body which are involved when he resorts to a well-tried and successful plan of treatment.—H. A. Hare.

THE TUBERCULIN-TESTED COW

Through the courtesy of Dr. James A. Egan, secretary of the Illinois State Board of Health, we have received advance information on an article which is to appear in the forthcoming *Bulletin* of the State Board of Health, in which Dr. Egan gives the reasons why he opposes the indiscriminate application of the tuberculin test to cows.

Dr. Egan's principal objection to this test is that, if indiscriminately applied and insufficiently interpreted, it does not afford any assurance that the cow so tested is free from tuberculosis, and that tubercle bacilli are not freely discharged into the milk.

It is well known that in the advanced stages of tuberculosis, the power of the organism to react to tuberculin may be abolished, and that in generalized tuberculosis the same may be true. In fact, in general miliary tuberculosis, the tuberculin test is frequently negative. We agree with Dr. Egan that a tuberculin test of itself, without attention paid to clinical findings and to environment, is insufficient and does not protect us from the possibility of receiving milk from tuberculous cows. For all practical purposes, physical examination, which should be particularly careful as regards the condition of the udders, is of greater importance, because as a rule milk is only infected if the udders are involved by tuberculous disease. The healthy milk-glands do not secrete tubercle bacilli, even in a tuberculous female organism. This is true in man as well as in animals.

If, therefore, the tuberculin test is to be made as a matter of routine, and the examination of the cows and attention to the strictest cleanliness in the environ-

ment of the milch cows is to be neglected, we agree with Dr. Egan that the tuberculin test is futile. It is never to be taken as a deciding factor in itself, and can only form a supporting indication and aid for the diagnosis, which, after all, must be made from the results of a careful physical examination, together with the history of the case. This again is true both for man and for animals.

On the other hand, if a positive tuberculin test is to be made a cause for obligatory destruction of the animal, the method may work unjustified hardship on the owner, because the subcutaneous tuberculin test may be positive when the disease is only slight, when it is healing or healed, and when there is no danger of milk contamination.

While we admit that a tuberculous cow should never be used as a milk cow, it may safely be sold to the butcher, provided the tuberculous process is limited and not extensive. Such meat is, by no means, dangerous, as has been shown conclusively in the case of the German "Freibaenke." This is, however, not the point at issue here and need not be discussed. Suffice it to repeat that the tuberculin test, unaided by other methods, by attention to clinical findings, to cleanliness, and the insistence upon proper environments is futile as a protection against contaminated milk.

Every man to his taste—but I'd rather have an assassin for a friend than a gossip.—Silent Partner.

THE TEACHING OF PREVENTIVE MEDICINE

Until recently, not one of the one hundred and fifty odd medical schools in the United States has given instruction in preventive medicine. Heretofore our sanitary officers have been compelled to learn their work as best they could in the school of experience. It is significant of the increasing interest in public health that three American universities have, within the last few months, initiated special courses for those desiring work of this kind, all these courses leading to the degree of Doctor of Public Health.

Harvard was the first to offer a course of this kind, under the direction of Dr. William J. Rosenau, formerly of the Public Health and Marine Hospital Service. Similar instruction was soon after provided by the University of Michigan, and now we learn that at a meeting of the Board of Directors of the University of Cincinnati, on July 13, a plan for training medical students in sanitation and preventive medicine was presented and adopted.

The last-mentioned institution is really the first to provide instruction in sanitation by what we may call "the labaratory method." The Cincinnati College of Medicine is a city institution, and it is, therefore, quite appropriate that it should cooperate with the Cincinnati Board of Health, which is also a city institution. The new arrangement provides for cooperation between these two. The Department of Health will provide the "clinical" material, while the school itself will furnish any necessary didactic instruction. In this way, the students can be thoroughly grounded in and become practically acquainted with the problems of meat, milk, dairy, and other forms of food inspection; with school inspection; with the methods of controlling infectious diseases; and with proper methods of keeping health records.

Every student in this institution will be given an opportunity for active practical service with the Board of Health, the classes being distributed among its various departments, to do chemical and bacteriologic work (the examination of milk and water, and testing for typhoid fever, tuberculosis, diphtheria, etc.,); to do sanitary inspection and fumigation; to trace the sources of infections; to make food, dairy, bakery, barber shop, and school inspections; to practise preventive inoculation and vaccination; to study the methods of disposal of sewage and of the dead; and to serve in the city dispensaries. Students will also participate in the work of The Antituberculosis League. They will take part not only in the laboratory and field work of the Board of Health, but also in its office work, studying methods of making reports, of compiling statistics and keeping records.

This is a real forward step, one which should be imitated by other medical schools.

If you are on the Gloomy Line,
Get a transfer.
If you're inclined to fret and pine,
Get a transfer.
Get off the track of Doubt and Gloom.
Get on the Sunshine Train—there's room—
Get a transfer.

THE CHANGE TO ALKALOIDS

Strong is the force of habit. Men insensibly get into grooves, and it requires a distinct effort to break out and direct thought and action into new channels. Many men are persuaded of the advantages derivable from the pure alkaloids, but are uncertain as to how to begin with them. It looks difficult, and only when one has formed the habit does he realize how easy and natural it is.

The first difficulty is the prescription habit. One has been accustomed to the use of a set formula, never varying the ingredients or proportions, so that this new idea of prescribing singles for conditions seems very scientific but difficult. In reality, it drops a burden from one's back, and places the doctor where he should be, at the bedside, estimating the disorder in his patient's machinery. Instead of waiting until the name of the malady can be written into the history-sheet, it attacks the most prominent factors as seen in the patient before our eyes. Before long the advantages thus gained will be realized.

Don't try too much at first. Select a dozen of the most generally applicable remedies, and study their powers carefully. Aconitine, veratrine, digitalin, strychnine arsenate, and their combinations, in fevers; atropine or hyoscyamine and glonoin; calomel and saline laxative; cicutine or gelseminine; the sulphocarbolates; pilocarpine, emetine, calcium sulphide. When these have been mastered one can do nine-tenths of his work with them. The other tenth will require many other remedies, more than we possess, but these can be added as the need for each arises. Get the method of direct medication firmly fixed into a habit, and the rest develops itself.

A routine is essential, because there are certain primary or fundamental facts applying to every human being who is ailing. We begin with the principle that fecal toxemia is a very common occurrence, and always bad. So we give calomel or podophyllotoxin, followed by a laxative saline, and get rid of this disease-factor to begin with. Meanwhile we investigate the eliminants, especially the kidneys, to be sure the channels are open for carrying waste out of the system. This will govern our therapeutics, for we shall hesitate to add to the toxin total in the body if it is already overloaded with poisons that can not be discharged.

Infective invaders are to be dealt with if present, and we turn to calcium sulphide to rout them, and to nuclein to reinforce the garrison.

The leading symptoms come next, and we supply remedies for fever, pain, vasomotor relaxation or tension, spasm, paresis, or whatever is most prominent. Only in exceptional instances does the nature of the disease furnish a specific indication, as mercury for syphilis, quinine for malaria, pilocarpine for sthenic erysipelas, sulphide for gonorrhea, or antitoxin for a diphtheria.

But there is growing up a line of specifics for conditions that may become of supreme importance, such as calcium sulphide for germs, berberine for connective-tissue relaxation, gelseminine for spinal irritability, atropine for hemorrhage, glonoin-hyoscyamine-strychnine for shock, collapse and spasmodic pain, aconitine for vasomotor spasm, digitalin for vasomotor paresis, strychnine to restore or enhance cerebral control and accentuate the vital processes, emetine to restore the normal digestive secretions, etc.

I have not mentioned two very common complaints on the part of patients, anorexia and insomnia. Purposely, for hunger and sleep are so absolutely inevitable to the healthy human being that their absence surely indicates the presence of an obstacle, and this must be found and removed. The direct treatment of either, without aiming at the etiologic factor, is a crime.

Pretty nearly the same may be said of the heedless prescription of tonics. Why

should a man need toning? If his vital processes lag, there's a reason. Find this and the remedy is plain. Too much food, too little exercise, brain overwork and no time for play, the mistaken assumption that the human body can run forever like a well-oiled machine. Go back to your Bible and read of the sabbatical year, when all Israel was expected to desert houses and live in tents leaving the land uncultivated, every seventh year. What is there that could more perfectly suit the needs of modern life than this septennial return to primitive conditions? Unfortunately, the demands of business make impossible to most of us this sabbatical year of mental rest. Yet how many a man would breeze in at the end of it, among the jaded brain-fags who had kept at their desks.

So frequent are the conditions met by the few remedies mentioned, that some will go along practising with them alone, acquiring skill in applying them that meets nearly every emergency with this limited list. I knew a man who extracted all teeth with one forceps. But the study of disease in the great book of nature leads to a certain nicety in adapting remedies to conditions and maladies, to individualize instead of generalizing. There will be cases that need aconitine rather than veratrine, atropine rather than hyoscyamine, sodium nitrite rather than glonoin, cicutine hydrobromide rather than gelseminine, apocynin rather than digitalin, brucine rather than strychnine, and so the list grows. Of the sulphocarbolates of zinc, sodium, lime, and copper, each has uses for which it is better fitted than the others. No other form of arsenic or of iron exactly meets the need for the iodides of these metals. But this expansion should come naturally. It is a mistake to try to swallow at a mouthful the results of milleniums of research and experience.

To the beginner, the use of the alkaloids seems a small change—simply the substitution of a rather better class of remedies for the old ones. As one gets into it, he begins to realize that he is on new ground, in a new world, one in which he deals with certainties instead of chances and guesses. Credulity, superstition, suggestion give place to reasoning based on fact, and, mathematically, certain results follow.

This is no imaginative sketch. It must seem so to the person who has not had the experience. One must have this, to realize the way in which his arm has been fettered, his science rendered impotent, by the uncertainty of his therapeutics.

Oh, how great is the power of truth, which of its own power can easily defend itself against all the ingenuity and cunning and wisdom of men, and against the treacherous plots of all the world.—Cicero.

THE PERSONAL SIDE OF THE DOCTOR'S LIFE

II.—THE CARE OF THE PERSON

What a piece of work is a man! How noble in reason! How infinite in faculty! in form and moving how express and admirable! in action how like an angel! in apprehension how like a god! the beauty of the world! the paragon of animals!

Could Shakespeare have painted this marvelous picture of Man, the microcosm, if he had had in his mind's eye some slouchy, stooping individual, lazily dragging one reluctant foot after the other, a half-week's stubble on his chin, half-dried drops of tobacco-stained sputum lingering at the corners of his mouth, hair dishevelled, hands dirty, finger-nails black, clothes stained, wrinkled and disordered, and his whole body exhaling the odors of the stable, mixed with those of tobacco and alcohol?

Yet, behind such a mask there may be the Man that Shakespeare painted, a paladin as brave and as clean of heart as any that ever risked his life to wrest the Holy Sepulchre from the grasp of the Infidel.

But who would ever guess it? Few can see behind the curtain of outward form, and for the majority of men—and women—the clothing, the gesture, the habit, the carriage of a person, as well as the character of his speech, are a faithful picture of the inner man.

Isn't the picture trustworthy in most instances? If you and I are really the men that we want people to believe we are, how important it is that the picture should be right—as we are right. If we look like like clowns and loafers, can we blame

people for assuming that we properly belong to those classes, instead of to a learned profession?

To care for one's person, therefore, is not merely a matter of taste or esthetics, to be attended to or not as we "have time." It is of vital importance. The physician is, or should be, a gentleman. He cannot afford to be neglectful of appearances, for these are the outward marks by which people appraise and catalog him. If he wants to be filed away in a score of mental pigeon-holes with the keeper of the livery stable, the blacksmith or even the saloon-keeper, all he needs to do is to look like and act like these otherwise possibly excellent men.

I am not going to write a "ready compendium" on the care of the body. Many of you very likely know more about this subject than I do. But I do want to make you feel, if I can, that in giving your own person proper attention, you should apply, practically, to yourself some of the excellent advice you are constantly giving other people—*and not for health purposes only.* Your success is at stake just as much as, and I think more than, your health—for dirt seems to be no bar to extremely (I well-nigh said "excessively") long life.

I might set forth a number of rules concerning the care of the person, but most of them could be summed up in just two words: "Keep clean!"

"But I do keep clean," you say.

Are you sure of it? Look at your finger-nails. Are they carefully trimmed and free from *visible* dirt?

Your hands and neck are clean of course—but your linen?

Are your teeth well filled, symmetrical, and clean? Is your breath sweet or foul? Is there a perceptible odor to your skin? Is the scalp in a healthy condition and your hair neatly trimmed? When did you shave—and when do you expect to shave again? You bathe—how frequently?

How easy it would be to elaborate on these points—to urge you to shave yourself every day; there are good safety razors on the market now, which make it easy. I wonder whether you also use the tooth-brush daily? I have seen hundreds of doctors, with mouths full of yellow, uncared-for snags, who apparently attend to the toilet of the mouth just as frequently as the Russian peasant takes a bath—which is never!

Neatness is really a synonym for cleanness—a diminutive term, perhaps, yet the person who is not neat is not clean. And *no gentleman is dirty.* Those of us who are trying to climb the ladder of life, who seek social recognition as well as professional and financial success, should keep this constantly in mind.

Much might be said about the importance of proper food and improper drinking; of the necessity for sufficient sleep; of giving proper attention to the hundred and one little things, the niceties of life that mark you as a man of culture and refinement. For instance, it naturally is of more *physical* importance that you should eat proper food than that you should feed yourself with a knife—inserted into your mouth longitudinally; but *psychically* the latter might be an equally serious bar to your advancement.

No man is so much of a "genius," so big a man in any way, that he can afford to consider himself as having a special license to neglect his personal appearance. The race of life has become so close that there is not one of us who can afford to give his nearest competitor a handicap; and other things being equal, *or nearly so,* the man who is clean, in body and in mind, is the one who will carry off the prize.

I like to see decency and dignity among the members of our profession, and these are not possible, or at least only rarely possible, to those who neglect to care properly for their persons.

Now, don't imagine that I want the doctor to become a prig or a beau, taking pride particularly in his personal appearance. Not at all. But I do want to see him a gentleman, a man above the crowd, and *looking the part.*

CAN PNEUMONIA BE CURED?

While it is a truism almost insulting in its simplicity that prevention is better than cure, and while prophylaxis, the youngest

daughter of medicine, presents one of the most important and valuable fields of endeavor for us to investigate, it is puerile to limit our exertions to the prevention of some diseases and at the same time be guilty of a pernicious *laisser aller* in those cases where prevention failed and the disease has become manifest. We refer more especially to pneumonia, which has become the pet stepchild of medicine ever since the professorial dictum emanated from the Windy City that therapeutics was powerless in that particular disease.

At the last meeting of the Ontario Medical Association at Niagara Falls, Dr. Wiliam C. White of Pittsburg gave an interesting and scholarly address on The Professional and Public Aspect of the Pneumonia Question (*Canadian Practitioner and Review*, 1911, July), in which he discussed the disease entirely from a prophylactic standpoint, declaring deliberately that we have no cure for it.

[Parenthetically we want to remark here that we sincerely wish medical writers would be a little more careful in the use of the term "infection." The author employs it in the same sentence both for infection and for infectious disease. But, pneumonia is not an infection, it is an infectious disease. Pneumonic infection is the introduction into the organism of the pneumonic virus. We can easily be, and often are, infected without acquiring the disease. Compare Stedman's "Medical Dictionary."]

Although it would be asking too much of some one-sided scientific investigators to consider the results of experience and to take into their calculations the knowledge gained in clinical medicine, this fatuous ignoring of well-established facts can not detract from the greater importance of clinical experience. We are altogether too prone to consider laboratory experience the be-all and end-all of scientific medicine and to apply the results of such experience directly to the patient. If their results are diametrically opposed to the knowledge gained by the bedside through careful and painstaking observation, opposed also to the conviction of thousands of competent physicians, as based upon such observation, so much the worse—for clinical experience. The laboratory declares there is no cure for pneumonia. Therefore, any patient who, by any therapeutic procedures whatsoever, is cured of pneumonia has not had pneumonia. That's "Irish," and it is a *reductio ad absurdum*.

Shall we ever learn, we wonder, that laboratory work is only a part of medical research, that its results are only then acceptable when they fit into the results of clinical knowledge? The mere assertion that, in a patient cured of pneumonia, the diagnosis was faulty is worse than begging the question. It is an unwarrantable insult offered to the intelligence and diagnostic acumen of clinicians. Pneumonia was diagnosed—and diagnosed correctly—centuries before the various microorganisms responsible for its occurrence were recognized. And this specific disease was cured, too. We do not say that cure is easy—far from it. But we do claim, and clinical medicine supports us in our contention, that it can be done.

As for the right of clinical medicine to judge, we quote Dr. A. P. Francine, who, in a paper published in *The New York Medical Journal* for June, 1910, declared that "a good piece of clinical work is quite as scientific in principle as a good piece of laboratory work, and the best type of clinical teaching is just as scientific as the same type of laboratory teaching."

We do not yield to anybody in our appreciation of what the laboratory has done for the advancement of medical sciences. We know as well as anyone could tell us that without it medicine would still be an art, pure and simple, instead of having, in at least many phases, reached the dignity of a science. But we would remind our extreme theorists that some of the most important contributions to medical knowledge were made by clinicians. We insist that laboratory research is only ancillary and subordinate to clinical medicine, which latter must judge and pass upon the results of laboratory work.

The aim and purpose of medicine is not alone to prevent future disease; it strives just as much to remove existing disease. For acute diseases, even those which depend upon known or unknown infectious agents,

we have positive means of jugulating and of modifying them. We can deliberately aid the organism in its struggle against the offending noxa, and can also assist it in establishing an immunity, thus causing the disease to disappear. This may properly be called the management of disease, but it strikes us that to lead a disease to a successful termination may also be designated, very properly, the curing of it. That this is often done in the case of pneumonia no longer requires proof.

It is most unfortunate that from high places the untrue assertion is constantly made that we have no cure for pneumonia. Such foolish claims can not prevent us from proceeding as we have done hitherto; it can not tempt us to "throw up the sponge" when called to a well-defined case of the disease. What it can and must do, is to make us distrustful of the ability of laboratory workers to discriminate between theory and practice; it will and must detract from our estimation of their results, because we are suspicious of the correctness of their conclusions.

Statements based "on well-known facts" or "irrefutable statistics" are usually lies.—Elbert Hubbard.

THE POPE AND THE ALKALOIDS

A number of readers of CLINICAL MEDICINE have sent us clippings from the newspapers in which it is stated, with regard to the treatment of the Holy Father during the illness from which he has happily recovered, that "the attending physicians are prescribing a treatment of alkaloids and also insisting upon absolute rest."

When Burggraeve introduced the dosimetric system he secured early and enthusiastic support from Italian physicians. One of the best writers and most able practitioners of the active-principle method was the late Professor Laura, of the University of Turin. In Italy, medical men have been quick to accept new ideas and as a result of this attitude the profession in that country is as progressive, as scientific, and as successful as any where in Europe. There have been no abler men than Grassi, Bassini, Baccelli and Lombroso, each an authority, standing practically at the head of his own peculiar field.

And so we do not wonder that the physicians who are charged with the preservation of the life of the pontiff turned at last to the alkaloids in the great emergency. It was the natural thing to do. They are brilliant, yet practical men. They want drugs of known activity, of uniform strength, of certain action. Where else could they be certain of securing them?

The medical profession is tending inevitably toward alkaloidal medication.

THE DEATH OF DR. FRANK P. FOSTER

We announce with sorrow the death of Dr. Frank P. Foster, editor of *The New York Medical Journal*, and dean of the profession of medical journalism in America. Dr. Foster was born in Concord, New Hampshire, in 1841, graduated in 1862 from the College of Physicians and Surgeons, New York, and in 1865 entered the United States Army as an assistant surgeon. Early in his professional life he became editor of *The New York Medical Journal* with which he has been identified for many years, and which owes its prominence in the medico-journalistic world to his fine editorial discrimination.

We can not better paint a picture of the man, than through the words of the journal which he edited, which in the number for August 19, telling of his death, said:

"In appearance Doctor Foster embodied the scholar and the gentleman; he was dignified without vanity and learned without pedantry. He was essentially the city man, urbane but restrained, familiar with and loving the products of high civilization, the architecture, the paintings, the music, the easy access to the finest in literature, the ability to meet the kings among men, not only the intellectual and successful, but the congenial and broad minded, the wits and *bons vivants*, bohemian as well as conservative. The singular circle of artists, men of letters, players, professional men, poets and clergymen that he gathered about him, lives as a tribute to his catholic mind, broad culture and humanity, and all mourn him as not to be replaced. When

able to relax from the rigidity of his scholastic standards none could be more the genial host and affectionate companion."

Those who have been familiar with *The New York Medical Journal* know something of the force, moral fiber and literary clarity of Dr. Foster's style, and of the fine scholarship that made itself felt throughout the journal. He will be missed, not only by his brethren in the journalistic field, but by the whole medical profession.

He who is continually changing his point of view will see more, and that too more clearly, than one who, statue-like, forever stands upon the same pedestal; however lofty and well-placed that pedestal may be.
—Sir Arthur Helps.

DRINKING WATER WITH MEALS

Since the days of our childhood we have been many times admonished of the danger to digestion of drinking water at mealtimes. The dangers of this practice—for it certainly is a practice with nearly all healthy men and some women—has been emphasized by nearly every writer on dietetics, and crystallized, and fossillized, in nearly every textbook. Now cometh an idol-smasher—verily, two idol-smashers—to assert that not only is drinking at meals not deleterious, but positively beneficial, and, utterly without respect to the sanctity of our revered dietetic tradition, these gentlemen proceed deliberately to prove their claims. Shame on them!

Dr. Geo. M. Niles, Professor of Physiology in the Atlanta School of Medicine, has conducted a series of experiments on sixteen young men who are students in the medical college in which he is instructor. These young men were physically sound, of average weights, with healthy digestive and vital apparatus, and all accustomed to drinking one or two glasses of water or other fluid with each meal. Eight of these young men were instructed to drink no water or other fluid with their meals, and between meals to drink no more than demanded by actual thirst. These eight young men all lost in weight—from two to eight pounds—with one exception, the exception being a young man employed in the railroad mail service, whose habits with regard to eating and drinking were so irregular that cutting off his water supply did not seem to make much difference. In addition to this loss of weight, each of these young men complained of headache and more or less constipation, barring the one exception mentioned.

The other eight students were directed to drink four glasses, or one quart, of water with each meal, and between meals to drink, or not, as desired. Theoretically all the men in this set should have suffered from indigestion, but strangely enough they did not. All gained in weight from $2\frac{1}{2}$ to 4 pounds, except one, whose weight remained the same. None of them reported headache or constipation or any form of digestive discomfort, and the single one who was constipated at the beginning of the experiment found his bowels more regular in five days.

Dr. Niles explains the improvement in digestion and nutrition, when an aqueous beverage is taken with meals, to the facts that a certain amount of gastric distention is necessary to stimulate muscular function; that food when it reaches the stomach, instead of being speedily mixed, is arranged in definite layers, that first taken being in contact with the stomach-wall; that the liquid contents of the stomach are first evacuated into the duodenum, these being followed by the carbohydrates, which are first to be digested, these in turn by the proteins, and last the fats. Water finds a ready exit when taken at any stage of the meal, and does not to any extent permeate a mixed meal or dilute or interfere with the potency of the gastric juice.

Finally, when an abundance of water is injected into the intestines, it is quickly absorbed, and by temporarily increasing the fulness of the blood-vessels, it promotes the intestinal secretion and peristalsis, to say nothing of its cleansing properties.

Dr. Niles' ideas receive substantial support from an article, in the May 15th number of *Archives of Internal Medicine*, by Hattrem and Hawk, who report experiments performed at the laboratory of physiologic chemistry of the University of Illinois. Without going into details regarding these experiments, it is sufficient to say that these gentlemen demonstrated

that the drinking of "moderate" or "copious" volumes of water (500 to 1000 Cc.) decreases intestinal putrefaction, as measured by the output of indican in the urine. The copious use of water lessens the putrefactive process more than moderate water drinking.

The authors believe that this decrease in putrefaction is due to a diminution of the activity of indol-forming bacteria following the accelerated absorption of the products of protein digestion and the passage of excessive amounts of strongly acid chyme into the intestine.

Thus apparently passeth another of our dietetic superstitions! But, is it not a fact that nearly every healthy individual craves liquids with his meals? Did this tradition come down to us with some other things from our Calvinistic forefathers, who believed that if we like anything it must necessarily be bad for us?

Nor deem the irrevocable Past
As wholly wasted, wholly vain,
If, rising on its wrecks, at last
To something nobler we attain.
—Longfellow.

THE MEDICAL PROFESSION

There are some things we believe in, and some principles which we make the basis of our work.

We live what we believe.

We believe that in the hands of the medical profession lies the power and that on its head rests the duty, of promoting the progress of humanity to a degree approached by no other calling.

The work of every man should be supervised and regulated by the doctor, that each man's powers and capabilities shall be developed and exercised in such a way as to secure to him and the world the very best results he can give. This means perfect bodily and mental health to him, and the even, healthy exercise of his powers along the line he is best fitted to operate.

The world's greatest projects should be based on our work, and still greater possibilities than have yet been dreamed may be opened up by such sanitary triumphs as have been won in Panama and in Havana.

To fulfil the possibilities opening up before us, we must develop our students along the most effective lines; and this means that the individual qualifications of each candidate for matriculation shall be judicially estimated: his capabilities as well as his educational acquisitions, his morals, his general fitness, and his capacity for development. The years he has spent in school and the degrees he has taken are not always indices of such fitness as we should require. Behind the education there is the man, and he is the main thing to be considered.

But we can not all be leaders. There must be privates in our army as well as generals. There must be general practicians who are content to pass their lives in out-of-the-way localities, as well as great city surgeons, for in our professional scheme the needs of the entire community must be considered.

The average must be high, but an average presupposes a minimum as well as a maximum. An uneducated person who has common sense, if he only knows enough to put his thumb on a spouting artery and hold it there, may save a life when the cultured product of the university is too far away to be utilized. The needs of a great nation are varied and a complete scheme must embrace all classes.

The Procrustean method of educating all alike must give way to the training of individuals so as to develop in each those capacities he possesses. That this means far more work than the establishment of fixed and rigid schemes to which all must conform, is no sufficient reason for not seeking to attain it. People who turn from things that seem difficult are out of place in the medical profession.

The present incongruous diversity of state examining boards should give place to one whose license should extend over the entire country. This could better be attained by a confederation of state boards than by a national one, since the latter would involve perplexing constitutional questions. An extension and simplification of the reciprocity idea could give us what we need—a license good wherever the flag flies.

There could well be established also a grading of candidates, such as has been in operation in some German states, when one passing a certain grade is authorized to do certain specified professional work, which is increased with each succeeding grade. This would remedy a multitude of ills under which we now suffer. The years of the medical course could be divided by terms of active practice in the specified limits, with advantages too obvious to need mention.

Pharmacy should be reunited to medicine by a conjoined course, because the work of these two professions is inseparable, and the separate maintenance of the two entails a continued warfare, equally detrimental to the dignity and the interests of both.

If you have a little headache
Or a pang of any kind,
Don't sit down and count your troubles,
But leave gloomy thoughts behind.

You'll feel better if you're singing
Than to sit and cry and pine,
For to whistle is far better
Than to sulk and mope and whine.

—L. M. Zimmerman.

APOLOGIES

We wish to apologize for the delays in the publication of much of the manuscript that has been sent to us for publication and has been accepted. In many instances we have made promises as to the date when these papers would be used, but which circumstances have made it impossible for us to fulfil. Probably no medical journal published, unless it be an official one depending for material upon the papers read at its society meetings, receives such an enormous amount of matter for publication as does THE AMERICAN JOURNAL OF CLINICAL MEDICINE. We now have on hand contributions enough to keep the journal going for at least six months, while constantly accessions continue to arrive. Some of these latter papers being on subjects of seasonable interest, they of necessity must be printed at once, but all others, the majority, must await their regular turn. This explanation is made, because we know that many of our kind correspondents must feel that publication of their papers is being unnecessarily delayed. We want everyone to understand the situation.

Meanwhile, however, we want no falling off in the number of contributions submitted. We hope to catch up in time, but we would urge every contributor to "say his say" in the fewest number of words possible, since our readers generally prefer short papers, and these will afford opportunity to let a greater number be heard in each issue. Furthermore, we would especially urge the submission of therapeutic papers, those dealing with personal experiences—of such we never get too many, and these, also, we can generally print soon after being received.

We shall appreciate very much if the readers of THE CLINIC will let us know upon what subjects they wish papers written. Don't forget to vote on "the most helpful paper." See Miscellaneous Department.

STATE DOCTORS PROPOSED FOR BRITAIN

Chancellor Lloyd-George of Great Britain favors the idea of making physicians officials paid by the state. He correctly considers that, if an assured position were given to physicians, they would be better able to protect the public health. In a recent address he said:

"I inquired as to the position of doctors throughout the country and discovered that some of them are wretchedly underpaid. An improvement is required. I have the average figure per member per annum in my mind, but have deliberately refrained from mentioning it at present. Improve the position of the doctors and you improve the general health of the country; and I want to make the nation more healthy than it is. A great mass of the illness which afflicts us and weighs us down is easily preventable. It would be a better thing to make a man healthy than to pay him so much a week when he is ill."

The idea that physicians should be government officials has been agitated frequently during the last few years. The present writer remembers having made the suggestion in THE ALKALOIDAL CLINIC,

in 1900. Even before that time, if memory serves us, was this suggestion made, especially in socialistic and in "utopian" writings, particularly of Germany and France. We do not remember whether the commonwealth described by Bellamy in "Looking Backward" needed physicians, or whether their sane lives had made us superfluous as a profession. If they did have need of us, it must have been more in the character of guardians of health than of "menders."

As already said, the idea is not new, nor is it at all far-fetched and impossible. The government employs its assistants from all walks of life and requires the highest degree of training and efficiency in them. It would not require a paternalistic government, but would rather be suggestive of a high degree of progress and wisdom if the government were to engage the physicians of the nation, not only in mending the people's health, but much more in preserving it and preventing disease.

It is a trite saying that the trend of medical science is toward the prevention of disease, and prophylaxis, hygiene, the sanitary sciences have come to be equally as important as are medicine, surgery, and obstetrics. The prophylactist or the hygienist in the capacity of an official would be much better capable of drawing up the rules to be followed by the people for the prevention of illness than is a physician in his capacity as a private individual. By all means, let physicians be employees of the government. They will not be any the less or for that matter any the more public servants than they are now, and they will certainly receive better returns for their efforts than they do now, and will not be worked to death, as they are at present.

For love is life and they who do not love are not alive, but every soul that loves lives in the heart of God and hears Him speak.—Henry Van Dyke.

IMPORT OF INTESTINAL WORMS

Modern medicine has had but little to say about intestinal parasites, except of the newly discovered varieties. Quite recently Ralliet, a pupil of Hutinel, lifts up his voice to protest against this neglect. His thesis, reviewed in *Annales de Médecine et Chirurgie Infantiles*, presents a review of known facts as also of the results of his own investigations. Thus, it appears that Ralliet, by examining the feces, found that about two-thirds of all the children of Paris between two and fifteen years of age are affected with intestinal parasites, and the result of his investigation developed the following facts and conclusions:

1. Intestinal worms were more frequently found in children than in adults, but ankylostoma was rare and bothriocephalus exceptional in children. In Paris, the most common was the trichocephalus, a little less frequent the oxyuris, more rare the ascaris. The latter was found more frequently in the country.

2. Nervous troubles were the earliest noted symptoms. Now termed reflex, they should be looked upon as of a toxic or infectious nature. They affect the predisposed neuropathics. Coexistent digestive troubles should not be overlooked. While these obscure the direct part played by the worms, the latter occasionally do cause convulsions, and other neuroses. Pseudomeningitis from worms is proved by lumbar puncture. There are also ocular troubles due to worms.

3. The study of cutaneous troubles opens an interesting field. Anal pruritus may be caused by oxyuris. Erythemas also are assigned to these parasites.

4. Surgical accidents due to worms are usually caused by ascarides. Perforation possible. Primary abscess due to worms not proved, except in one case of Froehlich's (oxyuris). Parasitic intestinal occlusion is a fact beyond doubt, the worms obstructing the intestinal lumen or favoring invagination. Verminous tumors have caused errors of diagnosis.

5. Parasites are frequently found in the appendices of children affected with appendicitis or dying from other maladies. Oxyuris and trichocephalus are often found in diseased appendices, causing or aggravating the malady. Entering the healthy appendix, they may inoculate it with the intestinal flora. The diagnosis is impossible. Anthelmintics do not penetrate to the appendix. Purgatives are forbidden in

acute appendicitis. Ascarides may induce a pseudoappendicitis—apparently grave but of favorable prognosis.

6. Gastrointestinal troubles are habitual with the verminous, a source of anxiety if the cause is unknown. They may mask gastrointestinal affections, as mucomembranous enteritis, dysentery, and cholera. Verminous colic may be recognized. Trichocephalic enteritis is not distinguished accurately enough to constitute a morbid entity.

7. Worms induce fever. Evanescent fevers are common. Prolonged typhic forms ascribed to worms are probably colibacillary septicemias, but this has yet to be proved, as has the agency of helminths in inoculating with typhoid fever.

8. Verminous anemias are admitted without question. The trichocephalus and ankylostoma determine forms that are grave, even mortal. The bothriocephalus alone induces the pernicious type.

9. Intestinal worms often emigrate beyond the digestive tube, into the biliary or pancreatic ducts (not diagnosed), and sometimes into the respiratory tract, when they occasion speedy death by asphyxia.

10. Sometimes helminths cause sudden death, which has been the subject of medicolegal intervention.

11. Diagnosis depends on recognition of expelled worms or their eggs in the feces. The oxyuris eggs are not often found. It is necessary to consider whether the symptoms are due to worms or to a coexisting malady. The administration of an anthelmintic may settle these doubts.

12. The success of treatment depends upon the care. Worms occur so frequently they should be looked for, as a routine.

The only anthelmintic mentioned in the review is thymol. This appears to be efficacious against all varieties of intestinal parasites, except the microorganisms. It is, very difficult to administer to children, and in effective doses is not without peril.

The older vermifuges generally brought away some worms, but did not cure. The records of the Brompton Hospital for Sick Children showed that the eggs of the worms continued to appear in the stools despite the use of santonin, chenopodium, and spigelia.

The only remedy that effectually stopped the discharge of eggs was cowhage. This forgotten remedy comes in the shape of pods covered with minute bristles. The pods were dipped into molasses and this with the bristles was scraped off. When the syrup was deemed thick enough, it was given to the child in teaspoonful doses. No harm followed to the child, but the worms discharged were transfixed by thousands of the thorns. It should be added, however, that many authorities now doubt this mechanical theory.

Cowhage has gone out of use, and neither in Denver, St. Louis, Boston, nor Chicago has the writer been able to secure a supply, although, doubtless, the detached bristles can be found in many of the older drug shops. It seems questionable whether the remedy can be as harmless as asserted.

This brings up another matter: It is not necessary to kill the parasites if they can be dislodged in other ways. It has long been known that iron does not agree with them, and a course of chalybeates will generally cause their departure. Quite recently it has been asserted that zinc sulphocarbolate is peculiarly obnoxious to them, and that if two to three doses a day, of 15 grains each, are given for a week, the bowel will be freed from parasites. This may apply possibly to the hookworm as well as to the common helminthus. It is certainly worthy of a trial. The remedy is harmless, although the individual doses suggested are too large. Better give an adult 5 grains every two hours for eight doses, and to children proportionate quantities, and thus avoid irritation.

OCCUPATIONAL DISEASES

Some years ago the Illinois legislature authorized the appointment of a commission to investigate occupational diseases in this state. This commission published its report in January, 1911.

The most elaborate study in the report is that by Dr. Alice Hamilton on industrial lead poisoning. The degree of danger varies for the different branches of this industry, of which the manufacturing and the distribution of lead products, smelting and

refining lead, the manufacture of white-lead and of paint leads, and the manufacture of storage batteries are the most widely harmful. The danger consists in inhaling particles of the metal, or in swallowing them with food or drink.

It is shown that comparative safety can be obtained by the use of hoods, exhausts and similar devices; clean, well-ventilated work places; the substitution of wet for dry processes, and the free use of water to keep down the dust; and the enforcement of strict rules regarding personal hygiene. Two simple precautions are the provision of respirators to be worn during all dusty work, and ample facilities for washing—in some cases for bathing.

Dr. Hayhurst studied brass working in Chicago and zinc smelting in LaSalle County. The risks seem less and the toxic effects less harmful in this industry than among lead workers, yet the occupation is considered unhealthful. The danger both among workers in brass and zinc is in the zinc, which volatilizes and is given off particularly when the ores containing these substances are smelted. Inhaling these fumes is liable to cause a peculiar affection known as brass-founders' ague.

It was difficult to determine the degree of toxicity due to chronic carbon monoxide in the steel plants in South Chicago and Joliet, though it was suggested in the report that, inasmuch as prolonged exposure to carbon monoxide may produce profound impression on the nervous system, it was by no means improbable that a part of the sluggish mentality among the workmen may be due to exposure to the gas. The prevalence of such exposure may be judged by the number of cases of "gassing" occurring yearly. The investigators found seventy cases, thirteen having proven fatal during the last four years. The danger from gassing consists, not only in the loss of consciousness characteristic of this form of poisoning, but also in the fact that the affected person is liable to fall into dangerous positions such as against a hot furnace or heated metal, or into pits, and so on.

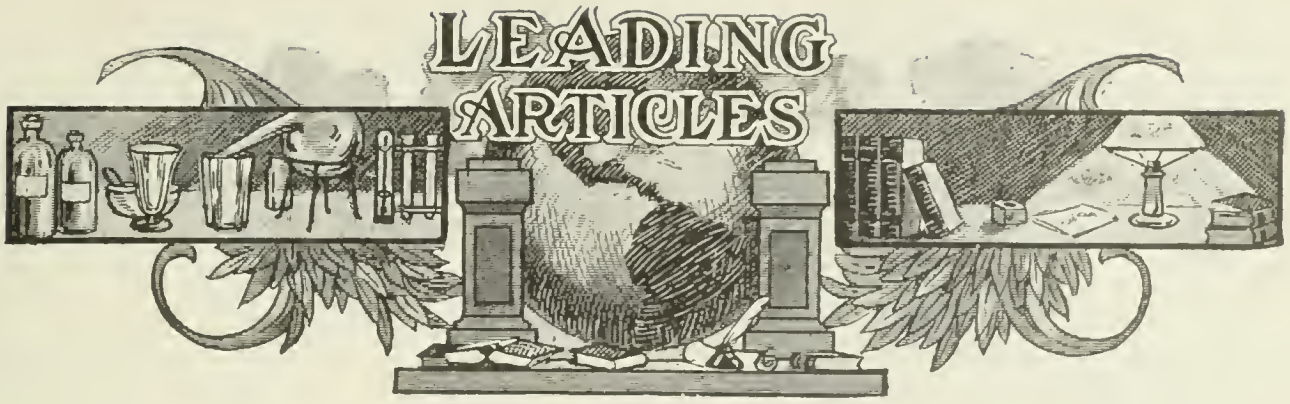
Turpentine vapors were found to be occasionally responsible for sickness among men engaged in indoor occupations requiring the use of this substance. The symptoms produced refer usually to the eye, the respiratory tract, and the urinary system.

One of the most interesting subjects discussed in the report was caisson, or compressed-air, disease. Dr. Peter Bassoe gave the result of a personal investigation of 167 men who had suffered from the disease. He writes:

"The disease seems to be directly due to the well-known law of physics, that a liquid can hold in solution a volume of gas proportioned to the pressure of that gas in the atmosphere to which the liquid is exposed. While at work in compressed air the men are exposed to a heavier atmospheric pressure than in free air. Consequently their blood absorbs a larger volume of nitrogen—that being by far the most voluminous constituent of air—than it can hold in solution under normal pressure. If, then, a worker whose blood has become thus saturated with gas under the pressure of the caisson atmosphere passes into the decreased pressure of a normal atmosphere, the gas may be set suddenly free, causing bubbles in the blood-vessels, interfering with the circulation and sometimes leading to permanent injuries."

Caisson disease may be prevented by a careful selection of workmen, young men being less liable to be affected than those of middle age, and a man of spare build having the advantage over the fat. The time spent in the caisson should be inversely proportionate to the pressure under which the work is carried on, and the passage from the compressed air to the natural air should be gradual, the men being kept in a lock in which the air pressure is gradually reduced until they may with safety pass out. The New York law provides that decompression shall be at the rate of three pounds every two minutes, unless the pressure should be over 36 pounds, when the decrease of pressure should be at the rate of one pound per minute.

There is only one method of treatment, and that is placing the sufferer again in the compressed air, keeping him there for some time and then very gradually to reduce the pressure.



Insanity in General Practice

What It Is and How to Manage It.

By JAMES G. KIERNAN, M. D., Chicago, Illinois

EDITORIAL NOTE.—This article is the first of several on the general topic of insanity, which Dr. Kiernan has promised to prepare for the readers of CLINICAL MEDICINE. *These articles will be written with special reference to the needs of the general practitioner, and promise to be of exceeding interest. Perhaps no physician in America is more thoroughly familiar with the subject, in all its many interesting phases, than Dr. Kiernan.*

DIAGNOSIS in psychiatry (as the branch of medicine devoted to insanity is now called), like all questions in science, depends for its solution on relative, not absolute, tests. No mental state can be an evidence of insanity unless it results from an underlying morbid element. Morbid factors in insanity are always: pathoanatomic (erroneously called pathologic), biochemic (that is, destitute of macroscopic or microscopic pathoanatomic features; erroneously—as the secondary results show—called functional), and teratologic (due to defect or one-sided excess, or both, in cerebral structure and possibilities).

The confusing conception of the subject thus cleared up, the following definition of insanity becomes possible:

Insanity is a morbid mental state arising from brain disease, disorder or defect which without adequate external cause perverts the mental relations of the individual to his surroundings or to what from his birth, education and circumstances must be assumed to be such surroundings.

Tests in science must be relative and must thereby exclude all alternative hypotheses.

Twentieth-century culture sits very lightly over stone-age beliefs which under financial revolutions come to the surface as in Dowieism, Eddyism, spiritualism, clairvoyants, beliefs in witchcraft, and so on.

Contrasted influence of environment and cerebral morbidity very vividly appeared in a brother and sister under my care. Both believed in fairies. The sister said (and justifiably) that the brother was insane, because his "fairies" did things no other "fairies" ever did. In other words, his "fairies," unlike hers, were not the product of education, but the hallucinatory delusions of a morbid mind.

The Important Elements of Insanity

It is not enough, therefore, that a strange belief exists; the *why* it exists is the important element in insanity diagnosis. Hallucinations, delusions, illusions, obsessions or imperative acts are of equal clinical significance in insanity as are temperature variation, stupid delirium, abdominal eruptions, diarrhea, and wasting in typhoid fever.

Hallucinations involve the special senses. A hallucination is a perception of an object as a real object, without the presence of the object to justify the perception. In this sense, hallucinations do not occur in

the sane. In the ordinary sense, omitting the phrase "as a real object," they do. The first implies belief in their actuality. The latter (unless there be failure to be logical or because of bad education) are merely subjective sensory perceptions the erroneous character of which is fully recognized.

An *illusion* is a perception of a real object in characters which it does not possess.

A *delusion* is a firmly fixed baseless belief out of which the subject cannot be reasoned by logic adequate to his birth, environment, and education.

An *obsession* is a dominant idea unrelated to the patient's mentality from which he cannot rid himself.

Imperative acts are acts to which the victim is impelled despite their (to himself) evidently trivial, absurd or criminal nature.

Hallucinations

Hallucinations involve all the senses and may be followed or accompanied with false secondary sensations. Hearing a sound may produce vision of a color. The blind man who said scarlet was the sound of the trumpet expressed a false secondary sensation.

Hallucinations, unless they occur too rapidly, induce certain acts. Auditory, visual, and gustatory hallucinations may lead to homicide or suicide. Olfactory hallucinations may cause the victim to commit arson, if it is disagreeable, or rape, if agreeable. The latter is due to the association of olfaction with the genitalia.

Olfaction as an Erotogenic Factor

The pristine association of olfaction with volupty has continued as an erogenous zone, even though desire produced by olfactory association has been largely replaced in man by desire from visual association. The extent to which olfaction exerts an influence in this direction on man has, however, been much underestimated.

Thus Cloquet, who has called attention to the eroticism excited by flowers, states that Richelieu lived in an atmosphere laden with perfume as a stimulus to volupty. Laycock (a keen neurologist) found that in women love for musk and other perfumes was related to volupty. According to Hildebrand, olfaction is remotely connected with sexuality. Flowers occasion pleasurable sensual feelings, which it is obvious did not escape Solomon's observation, as witness the Song of Solomon: "And my hands dropped with myrrh and my fingers with sweet-smelling myrrh upon the handles of the lock." According to Most, sensual young peasants excite chaste girls by carrying handkerchiefs in their axillæ while dancing and then wiping the perspiring faces of their partners with them.

Olfactory impressions in man under ordinary conditions do not, Krafft-Ebing claims, play quite as important a part as in animals. Binet, opposing this view of Krafft-Ebing, cites the case of a medical student seated on a bench in a public park, reading a book on pathology. Suddenly a violent erection disturbed him. He looked up—a woman redolent with perfume had seated herself upon the bench. He could attribute the erection to nothing but the olfactory impression. The infrequency of these cases, however, tends to support Krafft-Ebing's view that under ordinary conditions sexual response to olfaction in man is feeble.

Under the emotional disorder produced by the upset of insanity, primitive states rise to the surface. Hence olfactory hallucinations are often associated with sexuality in insanity and necessarily with the religiosity which so frequently vicariates with sexuality. Arson is due to the natural desire to purify by fire. Nasal disorders, ozena, etc., sometimes form an illusional basis of olfactory hallucinations. These, however, would not occur unless a psychopathic etiologic moment was present.

The Three Classes of Delusions

Delusions are divisible into three classes: temporary, permanently fixed and unsystematized, and systematized. The last two occur in chronic types of insanity only.

Systematized delusions are delusions supported by details which appeal to sane people untrained in logic and dominated by the suspicional egotism of primitive man, and who, therefore, disobey the command, "Judge not lest you be judged," and who violate the law that everyone

must be presumed to be innocent until proven guilty beyond a reasonable doubt. Systematized delusions are less apt to impress the populace and the charlatan as evidence of insanity than does the uncertainty born of fatigue in sane neurasthenics.

Systematized delusions are often associated with hallucinations. Then, from their seemingly occult nature, they are often accepted as evidences of sanity by the "hardheaded" business men who patronize quacks, buy patent medicines, become Eddyists, Dowieites or consult mediums or clairvoyants on business matters. Persons of this type accept the systematized-delusional lunatic or the quasi criminals mentioned as leaders, but decry sanitation or nonsurgical therapeutics as impractical. To them, the golden rule is the iridescent dream of a lunatic. Delusions constructed in the way described are evidences of insanity, but no belief born of environment, and logically acted upon from that environment, is such an evidence.

Obsessions occur in neurasthenia, but their morbid nature is then fully recognized by the victim, hence by themselves obscessions are not evidences of insanity.

Imperative acts are evidences of insanity, since in them free determination of the will is involved.

What are often taken for obsessions, by untrained alienists made so by a professorship in a subsidized university, are morbid emotions.

The melancholiac has not a delusion or an obsession that he is sad, but sadness tinges his whole mental being. The emotionally buoyant patient is really so, but without physiopsychologic cause. The same is true of the pathetically emotional patient. The stuporous and dazed or confused patient has these states as a basis of his mental operations. Unlike obsession, these emotional states are the basis of, not foreign to, the mentality.

Acceptance by Sane People of Insane Delusions

One test of a delusion usually employed is utterly valueless. The fact of its acceptance by sane people, the influence of the insane on crowds, as Ball remarks, cannot be contested. The epidemics of religious insanity, of hysterical religion, and of demonolatry attest this too emphatically. Anent the mental state of crowds, Fournial remarks that a crowd may be considered as a being which feels and acts but does not reflect. This is the result of the unconscious but suggestive diffusion of an emotion. It is produced by imitation. Such a mental state predisposes to the reception of insane notions.

The question arises, How far can this influence of the insane on the sane extend? The English and American witchcraft epidemics show that entire communities may be affected thereby. The same is shown in the crusades, in the "dancing mania," and to a certain extent in the flagellants. The history of "fire" panics in crowded theaters illustrates the psychological principle involved in "transformed insanity."

The principle underlying the frequent testimony of the sane to the truth of the delusions of the insane appears in the remark of Savage that "extraordinary complications from the occurrence of combination or agreement of persons of unsound mind upon the same delusion."

Despite all dicta on the subject, the insane may, therefore, have accomplices and abettors; some sane, some insane. Freeman of Pocasset, Massachusetts, was a paranoiac, his wife was an ill-balanced woman; but aiding and abetting them were, as Folsom has shown, sane second-adventist fanatics. In Sandwich, Illinois, a sane father and his paranoiac son abetted an insane mother in what proved to be a fatal forty-day fast preparatory to the immaculate delivery of a new Christ. The paranoiac son gave inventively stupid "spiritual" reasons why a necropsy disproved the existence of pregnancy.

Ball has not put the case too strongly, however, when he says that the sane of mediocre mental caliber are much more apt to accept the delusions of the insane than their fellows. More than one lunatic recognized as insane by his fellow patients has been released as sane by a "sane" jury on the testimony of "sane experts," to demonstrate later his "sanity" by a brutal,

uncalled-for homicide. How far this influence of the insane on the sane extends has been shown in more than one revolution or religious sect.

Masaniello was, as Sir Walter Scott has shown, a paranoiac who became the head of the Neapolitan revolution. Rienzi, as Lombroso has proven, also was a paranoiac guilty, when a ruler of Rome after his successful revolution, of a thousand insane inconsistencies. The paranoiac Julia de Krudener was strongly potential in forming the "Holy Alliance." The paranoiac Louis Reil nearly shook off Canadian rule over the Indians of the Northwest.

John of Leyden, Muggleton, Naylor, and Johanna Southcotte were paranoiacs able to impose their delusions of divinity of prophetship or of divine maternity upon numerous followers, and thus to establish religious sects. The pseudocyesis of Johanna Southcotte, which recalls that of the Illinois woman, was accepted as pregnancy with Christ, by numerous devotees, whose faith in this "pregnancy" endured, albeit it was "protracted" for years.

Religion and revolutions are sufficiently out of the common to be accepted as predisposing to insane delusions. In finance, however, the same story is told. Clouston had under his care a paranoiac who was able to impose his delusion, anent the "elixir of life," on sane people and sell them stock in the same while on parole from the insane hospital. That Patterson, the "Darien Schemer," was a paranoiac, Macaulay's account leaves no doubt. His "Darien scheme" ruined half Scotland.

The Nez Percés Indians

By CHARLES STUART MOODY, M. D., Sandpoint, Idaho

EDITORIAL NOTE.—This is the seventh installment of Dr. Moody's interesting serial, which has been followed by the many members of the "family" for several months. Look for another paper by the same author next month.

Political Life of the Nez Perces

THE tribal political life and system of government of the Nez Percés Indians, before they came in contact with the whites, was a difficult matter to understand. It required years of association with the people, coupled with an intimate knowledge of Indian mental processes, to arrive at anything like a comprehension of the seemingly inconsistent phases that went to make up their form of government.

The Nez Percés Nation, at the time of which I speak, consisted of a number of allied tribes strung together in a sort of rude confederacy. In a great many things the several tribes were totally independent of and owed no fealty to the central government. In other, and seemingly less, important matters, they were bound to the central government and to each other by the strongest ties. Broadly speaking, matters that concerned each tribe only were adjusted by that tribe, while matters in which the whole people might have an interest, no matter how remote, were considered by the nation as a whole.

The Chief of the Nation

The Nation was ruled by a hereditary chief, and by several subordinate, or subchiefs, as his aids and advisers. How the ruling line of our day acquired its title is a matter shrouded in mystery. So far as I have been able to ascertain, the family of which Chief Joseph was the last had ruled the nation as far back as their tradition extends. The monarchy was in a sense elective, but the mantle of authority fell, by common consent, upon the shoulders of the eldest son of the chief, at his death. The ceremony of election was purely a matter of form.

After the advent of Christian influence among the people, a very bright man, The Lawyer, set up his claims to leadership and was elected by his Christian brethren on the Kooskia to the position of chief,

but his authority was not recognized by any considerable portion of the tribe, though he continued through life to exert a great influence over his immediate people; and it must be admitted that this influence, judged by Christian standards, was always for good.

Contrary to the popular belief, the authority of the head chief was not sovereign. In fact, his voice in council was not more powerful than that of any other councilor. When he arose to speak, his words were heeded with the same degree of courtesy as those of any other member of the council, but each councilor felt perfectly free to dissent from his expressed opinion if the ideas of the chief did not strike him favorably. He could no more issue an arbitrary decree than can the President of the United States. In fact, our Chief Executive is vested with more despotic power than was ever a head chief of the Nez Percés.

So far as I can recall now, only in matters of war the chief's power was absolute. When he assumed the leadership of his tribesmen in arms, then his power over their movements became paramount, then was he chief in fact as well as in name and no warrior dreamed of questioning his decree. It must be stated, however, that even under these conditions the head chief never took action without the advice and counsel of his subordinates. Joseph even went so far, in the Nez Percés War, as to halt long enough in his flight, to call a council to decide the question whether they should submit to the yoke of bondage, lay down their arms and return to the reservation, or continue their retreat and endeavor to reach a country where they could live without the domination of the white man. This is mentioned merely to show that the dictatorial has no place in the Nez Percés make-up. In fact, I have never known a people, white or red, who tried to live so nearly by the laws of right and justice as the Nez Percés.

The Grand Council, or "Talks"

I have had occasion, in the past few pages, to mention the council. Perhaps it would be well here to explain that matters of general tribal moment were settled and laws for the guidance of the people made at a council, or, as it is called in the Nez Percés tongue, a "talk."

This rude legislative body was composed of the head chief, his subordinate chiefs, and old men selected from the several tribes. In addition to these, were the *tu-ats*, priests of the tribal religion, who were entitled to seats by virtue of their office, much the same as the English bishops are entitled to seats in the House of Lords. These *tu-ats* occupied such a unique position in the Nez Percés scheme of affairs that I shall be obliged to devote some space, hereafter, to their consideration.

To afford a better understanding of how the legislative affairs were worked out among the people, a typical council meeting will be portrayed.

Let us assume that some matter requiring the wisdom of the entire nation has arisen. The head chief calls upon the members of his council to meet at some selected place at a given time—the time usually spring or summer, the place a mountain meadow where forage, wood, and water were plenty; a place too, especially after the advent of white settlement, sufficiently remote so as to insure privacy in their deliberations, for the Indian was naturally a secretive animal and objected to baring his actions to the light of unsympathetic criticism.

Going Into Encampment

The manner of summoning was very similar to that in which the Highland chieftains called together their clans, except that the courier carried, in place of the fiery cross, an arrow adorned with the cognizance of his chief, this, in the family of Joseph, being the white feathers from the tail of the bald eagle. The herald visited, on foot, each tribe and announced to its head men the time and place of meeting. If the matter were urgent and the time short, several messengers were sent out simultaneously. It is rather curious to note that the call for the council was always in the form of a request, never a command. The words were, "Will my brothers meet me?"

A few days prior to the contemplated meeting a general movement of the Indians

in a given direction might be observed. To the few whites this was often a matter of some concern. The Indians would be about their occupations today, tomorrow every camp would be deserted, the trails filled with traveling Indians. Every savage felt the weight of government resting upon him, what though he had no voice in the deliberations; he must be there and witness the proceedings.

Their manner of traveling was illustrative of Indian traditions. First would be seen the men riding single file, or if the trail were wide enough two by two, conversing earnestly. Next would come, at some distance behind, the women bearing their babies, either strapped to their backs or dangling from the saddle-bows. It will be understood here, of course, that when the Indian baby is born it is laced into a buck-skin pocket attached to a board, and is so kept until it is at least twelve months of age. While it is beneath the dignity of the men to talk in a loud tone, the women have no position to sustain, so a collection of them going along the road make more chatter than a Dorcas Society under full steam.

After the women in the train came the pack-animals laden with the camp duffle. And often, perched atop of a mountainous pile of tents, blankets, cooking utensils, and such like, on a steady old cayuse, would ride a diminutive red chap, too young to manage his own mount, and yet at the same time ousted from his comfortable skin cradle by the latest arrival. It always struck me as being very amusing to see one of these little fellows: his head just appearing over the top of the pack, oftentimes sound asleep, his body wobbling from side to side by the irregular motion of the horse. The larger boys and girls brought up the rear, keeping the pack-animals in the trail, for the horses had a great desire to browse by the way. It is an interesting fact worth noting that an Indian-bred horse will not travel unless he is encouraged all the time. The Indian equestrian carries a leather whip and with it he keeps tapping his mount at every step.

Sometimes, an hour after the band had passed, a lone old horse might be seen trudging along the trail, a tepee pole strapped to either side of his pack-saddle, the ends dragging several feet in the rear, a rude stretcher placed across, and upon it reclining at full length some ancient savage, too old to ride horseback, yet too full of tribal patriotism to remain away from the council. Judged by civilized standards, the treatment of the old man was heartless, measured by the way the savage estimated things, the proceeding was quite natural. The old man was perfectly content, his people knew that in course of time the honest old horse would come straying in and stop beside some tepee to be relieved of his burden. It was simply the savage method of doing things. There was no actual lack of feeling displayed. Any member of the tribe would have gladly laid down his life in defense of the old man, and that is a great deal more than can be said of some people who are far higher in the scale of civilization than were the red-skin Nez Percés.

When the camping ground had been reached the bustle and confusion of making camp was something amusing. A casual observer would be willing to take oath that out of all that clatter and turmoil nothing could come. It was one confused jumble of women, children, horses and dogs, especially dogs. Each individual seemed trying his or her best to get in the way of every other individual. Yet, out of the seeming chaos in an incredibly short space of time a camp would arise. The fires would be lighted and supper cooking in less time than a white man would take to decide where to pitch his tent. Through all would prevail the greatest good humor. If some Nez Percés lady of two-hundred weight should chance to trip over a sleeping dog, she did not regain her feet, seize a tepee pole and endeavor to beat the unoffending canine into sausage meat, but would scramble up amid shouts of laughter in which she would join as heartily as any. Ill humor was never a failing of these copper-hued children of nature.

During the camp making, the men would assemble beneath the shade of some convenient tree and there discuss the matter that had brought them together, for be it

understood, the men had no part in the labor of arranging camp.

* * *

My mind has been busy with the past and memory has conjured up the picture of an Indian camp on a mountain meadow many years ago, and I cannot help sighing with regret that the scene will never again greet my eye. The Indian of the white tepee and wild, free life is forever gone, and in his place is—what? Time alone can tell. The intruders were not content to let him live the life nature had fitted him for, nay, they must "civilize" him—and may God pity the product of their "civilization;" may He forgive (if He can) the meddlesome "civilizers."

The Indian Camp as It Used to Be

I see a broad and grassy meadow, green as an emerald, with a crystal stream winding sinuously down its bosom; an afternoon sun sheds a mellow light upon the scene. The meadow is girt round with an evergreen forest of gigantic pines and deep-leafed firs; behind all, in the distance, the great seamy old mountains rear their majestic crowns, like Titanic bulwarks, to shut out the coming civilization from the peaceful vale.

On the border of the meadow I see a cluster of white tepees with the evening cooking fires burning in front of them, the smoke ascending in white thin columns straight into the blue vault of heaven. Women, clad in the picturesque garb of the Indian people, bend over the fires or move about attending to the simple duties of their nomad life. The music of childish laughter comes to me as the boys and girls play along the borders of the stream. Horses stand knee-deep in the lush grass, idly nipping a wisp now and then or nodding half asleep in the warm sunshine.

Gradually the light fades and grows dimmer as the declining sun hides behind the western horizon bar. The shadows grow long on the meadow and a light mist drifts down the evening breeze that has sprung up as the sun sank low. The night-hawks come out and winnow the meadow seeking their food, soaring in myriad graceful circles; the little screech-owls tune up in the dark forest and sing their even song, accompanied by the liquid melody of the evening-thrush; a lonesome coyote howls dismally from the protection of the forest and is answered by a chorus from the Indian dogs. One by one the stars creep out, and night is come. The cooking-fires smoulder, grow dimmer and dimmer, and finally flicker and die.

Now, in the place of the numerous cooking-fires, a great central fire is started up. It glows, first, a tiny spot where the torch is applied; now it spreads as the dry limbs feel the influence of the heat, until it lights up the whole scene, the dark background of forest, the white tepees, the men and the women as, like dark specters, they move about hither and thither. As by a common impulse, all those encamped gather around the fire, the women with their tasks, the children with their toys, the men, congregated in little groups about some sage of the tribe, listening as he repeats the stories of the olden days and tells of the valorous deeds of his people.

I see the moon creep slowly above the tree-tops, flooding the meadow with a mellow light before which flee the shadows that lurk in the rim of the forest. The light from the fire grows less and ever less, and then, as the chill of the mountains floats down over the land, the night-fog wraps its white mantle over the scene. The groups about the fire break up; the women fold their work and glide away in the darkness; the children cease their games and follow; the men, one by one, rise and stalk away. At length none remain but the old sage, who sits for a long time dreaming into the bed of glowing embers. At last, he, too, lifts himself painfully to his feet, and leaning heavily upon his staff hobbles away to his tepee.

Such, my friends, was the Indian camp as I knew it years ago, when the tribes were all united, before the white man came with his greed for land and his lust for gold. Such will it never be again, for the tribes are scattered, their numbers are few, and these vainly trying to ward off the inevitable by adopting the ways of the white man.

* * *

The camp usually was formed several days prior to the arrival of the head chief

and his contingent. In fact, it was customary for all to be at the appointed place of meeting and ready to receive the chief when he came. In an open space, somewhat apart from the main camp, the council-tepee was erected. This tepee was generally made by placing two conical tepees together, although there were times when a large tepee was constructed especially for the purpose. Before raising it, the ground was cleared of all undergrowth and grass, sprinkled with water and then beaten solid with mauls. A fire was lighted in the center and this kept alive for at least three days. I was never able to learn that any significance was attached to this fire in the council-tepee. In certain of their religious ceremonies, to be mentioned later, the fire had a religious significance.

The Arrival of the Chieftain

On the day of the arrival of the chief all was excitement and stir. The men caught up and saddled their finest riding ponies, each looked well to his arms and accoutrement, donned his brightest robes. Vermilion and yellow ochre were brought out and the faces of the men were decorated in the most fantastic style. The women, too, painted their faces, but their adornment was confined to a single blotch of red on either cheek. A great many people suppose that whenever an Indian put paint on his face he was preparing to take the warpath. Such is far from the truth. The particular manner in which the pigment is applied tells the whole story to the man versed in Indian customs. The warpaint is applied and made to assume such fantastic figures that when once seen it is never forgotten.

At length the arrival of the chief was announced. He did not immediately enter the camp, but halted in the shadow of the woods at some distance, to allow his loyal subjects to make ready for his reception. As soon as the herald announced the approach, every warrior ran for his horse, every woman, and every child large enough to ride seized their horse-gear and hastened to where the horses were feeding in the meadow; for only the mounts of the men were caught up and ready, as only the men were expected to take part in the reception. The men mounted and formed in two lines on either side of an open space through which the chief and his retinue were to ride.

When all was in readiness, the chief came riding sedately in the lead, his immediate followers close behind. They rode down the lines to the welcome of the greeting song. This song has been supposed by many to be the war-song. The words really mean nothing. It is a sort of national anthem sung on divers occasions. The words, freely translated, mean, "The wolf comes." Sometimes the burden is varied by substituting the word "bear" or "eagle" for the word "wolf." The song could not be said to have a tune as we understand tunes. There is a wild cadence in minor that has a sort of poetic rhythm but no actual tune-value.

When the procession had passed entirely through the lines, the mounted horsemen closed up and followed, the procession riding through and around the camp. By this time the women and children had riden in and the formation broke up. A wild equine dance then ensued, one by one, two by two, groups, tens, twenties, all circling as fast as their fleet ponies could go, every person singing the chant. This would continue for some thirty minutes or until the chief ended it by riding apart and dismounting where his tepees were to be erected.

Two or three days were allowed to pass before the council was convened. These days were given over to a discussion of the matter in hand, visiting, playing games at night, racing horses during the day, or hunting if the game were needed.

The Meetings of the Council

No especial ceremony was observed in assembling the council. Those writers on Indians who have depicted a scene of great formality at the meeting of an Indian council were drawing upon a very vivid imagination. While the Indian is a very deliberate person, the idea of formality never gained lodgment in his brain until after he was taught it by his white neighbors.

The members of the council assembled on the green, each dressed in his finest bib and tucker. If there were chiefs, they wore their robes of office and their feather headdress. The old men often wore a robe of white rabbit skins and dressed their hair with ermine skins or bits of bright flannel. The chief, as became his dignity, wore his full regalia of office—feather headdress, buckskin shirt ornamented with elk teeth, necklace of bear's claws or eagle claws, beaded leggings and beaded moccasins. He carried either a gun or his bow and arrows. If the latter, the bow was confined in its scabbard.

Placing himself at the head of his council, the chief marched into the tepee and once entirely around it, then seated himself at the head. On either side, ranged in order, were the councilors, the younger men coming last. Persons not members of the council were permitted to enter and ranged themselves standing behind the circle.

The discussion was opened by the chief, who briefly stated the cause of their coming together, then took his seat. The oldest member of the council then arose and expressed his views. His remarks were listened to with close attention, his auditors signifying their assent by repeated expressions of "*a-e*," "*a-e*," or their disapprobation by "*wa-to*," "*wa-to*," (no, no). Each member was expected to proclaim his views. There was no shirking of responsibility, they insisted upon knowing where every man stood. The chief himself spoke last. If the matter were one upon which there could be no dissenting opinion, the council soon ended. The question settled, the camp again gave itself over to merry-making, or the tribes separated and went their several ways.

Such councils, however, were rare. Days and weeks many times were spent in debating a moot question. Many times the proceedings would be interrupted by some member arising, drawing his robe about him and stalking out. Then each member arose and followed. There was no question about his going, but the proceedings could not go on without him. It was the privilege of any councilor to leave at any time and his leaving stayed the deliberations. In the open, they would meet in groups and continue the debate, but such open-air meetings did not have the effect of a council. Under their custom, any question had to be concurred in by all the council. There was not majority rule. It was unit rule.

When the discussion bade fair to string out to too great length or when there were only a few holding out on one side, the *tu-ats* came in. These dignitaries wisely withheld their voice until they found out which was to be the popular side. In fact, the *tu-ats* were the wisest politicians I ever saw. In political acumen they could give pointers to Tammany in its palmiest days. Some morning one of them would arise and announce that he had had a "dream." The word is not "dream," but that is the nearest rendition of it. Instantly every ear would be cocked in the direction of the speaker. The messiah was about to speak through his mouthpiece, the *tu-at*.

Then the *tu-at* would relate his dream and proceed to interpret it. It might be that the vision appeared to have not even the slightest bearing on the subject-matter of the debate, but the *tu-at* had no difficulty in reading such meaning into it. The announcement of the will of the messiah terminated the council, for no man had the temerity to countervail his wishes.

The Trend of Modern Obstetrics*

By A. B. LEEDS, A. B., M. D., Chickasha, Oklahoma

II

The Danger to the Child

But more, the effects upon the child of the neglect and haphazard preparation of the expectant mother's physical and nervous condition during pregnancy, demands our earnest thought.

Is not the future baby, created without its own consent, entitled to some consideration at our hands?

Is not the "struggle from the cradle to the grave" strenuous enough when we have the assistance and advantage of all our members and faculties, without being handicapped as many are?

And, further, is it right to ask an expectant mother to undergo the strain of a pregnancy and endure the usual amount of discomfort and suffering to be rewarded, in the end, with a stillborn baby? Or to have a puny, illy nurtured child, absolutely unable to stand the strain of life? Or to have a scrawny, perhaps tainted and infected baby, which will be, perhaps, blind, deaf and dumb or deformed? Or to have a baby which, as the result of the serious injuries obtained, at the time of confinement, from instrumental interference, will die in a short time, or be a crippled reminder of the lack of intelligent instruction on the part of the physician?

To the natural query, "Is there a remedy?" the author would say, "Yes, indeed."

Let Us "Get Right" Ourselves

What, we would ask, is that remedy? How will it be possible for these conditions to be overcome? Or in biblical language, "What must we do to be saved?"

The author answers, "Begin at home" and get right ourselves, as physicians.

If you have not the time or disposition to give to your pregnant patients the careful and intelligent attention they deserve, it would be far better for you, and for them too, as for that matter, to refuse these cases.

If you do accept them, adopt as your obstetrical motto the old adage, "What is worth doing at all is worth doing well."

Do not regard obstetrical cases as disagreeable necessities which you are compelled to accept and tolerate as a stepping-stone to the family practice.

Prepare yourselves by reviewing the recent works and latest journals at regular intervals, so that you may be able to give these patients the benefit of the best advice obtainable.

Keep ever in mind that we humans have a system, both physical and nervous, in which there is a greatly added burden to that of the endeavor to equalize and regulate the intake of nourishment sufficient for the normal system and the expulsion of poisonous used-up energy.

Some Things to Remember

Remember that it is not so much the absolute size of the pelvis as the relative dimensions compared to the individual child.

Remember that the muscular powers of different women vary greatly, and wherever you anticipate a deficiency, your efforts must be exerted in overcoming this deficiency.

Remember that there is a great difference in the nervous resistance of women, and that, by watching the nervous system, we should be able to prevent the after-effects of the pains and exhaustion of labor which often have a lasting serious influence.

Remember, also, that there are sickly, delicate women who would never have reached maturity without the unusual care that has been bestowed upon them, and that these patients demand every known assistance and aid to be able to terminate pregnancy successfully.

Bear in mind that there are many women who can not accommodate themselves to the changed conditions of pregnancy, and with them there is need of an everlasting intelligent advice and instruction as to the dangers of neglecting themselves, and

*Read before the Oklahoma State Medical Association, May 10-12, 1910.

the wonderful benefits to be derived in assisting nature.

Study carefully each patient so that you will be able to intelligently advise her as to her individual needs, for in individualizing your obstetrical cases you are laying a firm foundation for success in these cases.

Be firm with your pregnant patients, and when you find that they antagonize your efforts or fail to follow your advice, it will be to your interest to insist upon them getting someone else. Here's a case in illustration: Mrs. W., age 24. History of fall, with permanent injury to spine and hip; also deformed pelvis. Delivery at seven months advised, but patient overpersuaded the author to wait until full term. Result, an eighteen-pound, stillborn child; the patient living a week, succumbing to shock.

Two More Illustrative Cases

Another case: Mrs. D., age 25. History of husband having had syphilis, ten years before, but no signs in past five years. Antisyphilitic treatment for wife was advised by author, but the husband insisting that if this treatment were given he would be compelled to explain his previous condition, the author was overpersuaded. The result was a stillborn, syphilitic child, and a serious and tedious convalescence for the wife.

The husband refused to make a clean breast of the trouble so that his wife could have the proper treatment, and as the result of another pregnancy, occurring very shortly after this, there was a miscarriage, at three months, of a syphilitic child, and as this occurred when the author was out of the city, another physician was called, who explained to the wife the cause of the trouble. The husband confessed his part, but denied the advice and previous suggestions of the author. You can imagine the present standing of the author with that family.

Another case: Mrs. X., age 23. Husband gave history of a case of gonorrhea, apparently cured. Antigonorrheal serum treatment for the wife was suggested to the husband, but refused, owing to the necessity of an explanation having to be given. Another physician was secured, and after delivery an infection developed, which a third physician pronounced due to the carelessness of the second physician, although the patient was treated for a gonorrheal infection.

Some Things to Be Done

Be sure to use your abdominal binders and supporters during convalescence, and for some time afterward, as they will give much needed assistance to the weakened abdominal muscles and internal organs of generation, also assist materially in preserving the previous symmetry of the mother's figure.

In case of fever following confinement, be sure to examine the blood for malaria, for often a latent malarial infection will demonstrate itself after the depressing effects of confinement; also, in this way, you can often explain and treat intelligently an infection which might otherwise be a source of embarrassment and censure to the attending physician.

Make repeated examinations, during pregnancy, of the blood and urine, for a clogged condition of the system will often be shown, which, when taken in time, is easily corrected, but if allowed to persist may become of a serious nature.

The use of normal salt enemata, frequently, during pregnancy, especially when any symptoms of toxemia are present, is a valuable aid.

The routine use of liquor ferri et ammonii acetatis gives excellent results.

The early and persistent massage of the breasts with olive oil, together with alcohol or similar preparations applied to the nipples, will measurably prevent necessity of bottle-feeding of babies.

Persistent and regular massage of the abdominal muscles with olive oil increases the muscular tonicity, and in this way often obviates instrumental interference.

A heart-to-heart talk with the husband and wife, as soon as convenient after you have been consulted, will give you their confidence and also establish a hearty cooperation.

A lack of an ever-watchful eye on your pregnant cases sooner or later will develop

for you a horde of obstetrical wrecks, with tongues never stilled, waxing eloquent in every listening and sympathetic ear, as they depict the suffering and agony which they will have to endure, always, as a result of the services rendered by you; and this never-ceasing tale of woe will surely and persistently limit and eventually terminate a physician's usefulness in a community.

Be serious and earnest with your recent-pregnant woman; do not treat her aches and pains in a light or frivolous manner, because, to her, it is a serious, strange, wonderful and ofttimes fearful experience.

Encourage her confidence, and discourage her seeking or accepting advice from the neighbors or meddling old women.

Tell her that instead of a bother or trouble, it will be a pleasure for you to give her a common-sense reason for every phase of her condition.

If you will explain these things to her in a language which she can understand, and are kind and patient, she will appreciate the treatment received at your hands, and you will steadily establish an obstetrical practice like unto those things described in the Good Book as "treasures laid up, which thieves can not take nor rust or moths destroy."

It is needless to more than mention that in obstetrics especially "cleanliness is next to Godliness."

Adopt a rule and adhere to it, strictly and religiously, that you will not accept an obstetrical case unless you are permitted to watch and care for it at least three months before confinement.

Tell your patrons that the successful termination of pregnancy depends upon a thorough preparation, and that the more common sense used and the more rational assistance rendered nature, the less medicine will have to be taken and the less serious trouble and complications will have to be overcome.

Give them a good sensible reason for everything that you ask and tell them to do.

One of the most important things to do is to charge twenty-five dollars for your uncomplicated cases. Then do good work and make your patients pay. No one will value your services any higher than the estimate you place upon them yourself. Does a $7.50, $10.00, $12.50 or $15.00 suit of clothes receive the same respect and treatment that a $25.00 suit does?

Whenever you find people who consider the care of themselves and wives like a $7.50, $10.00, $12.50 or $15.00 suit of clothes, you would better advise them to employ someone else in that confinement case, for your financial and professional reward from such cases will be of little value to you. A thing or service cheaply obtained is esteemed of little value.

When you insist upon your confinement cases being given to you at least three months before time, it is much easier then to arrange for the amount of the fee and the manner of its payment, than to attempt to quibble over the fee at the time of the call for your services.

The author had found that the husband, or other members of the family, for that matter, under the strain and excitement of the impending confinement, are very prone to be very prolific and rash in their promises, but more dilatory in their efforts to fulfil them.

My obstetrical clients understand that this work is C. O. D.—"cash on delivery"—and wherever, beforehand, it seems expedient, the full fee or the greater part has been in the hands of the author before the services have been rendered, sometimes being collected in amounts of $1.00 or $2.00 at a time.

With this fee for your services, and its payment practically assured, you can afford and ought to have an obstetrical grip which you use for no other purpose and which is equipped for any emergency that may arise in these cases.

Have it like unto the virgin's lamp in biblical verse, "always ready, filled, trimmed and burning, so that when the baby (instead of the bridegroom) cometh," you can grab your grip and run, satisfied that nothing can arise which will necessitate a serious delay while you, or someone else, hastens back after something forgotten.

Thus can we, as members of the noblest profession on earth, add our mite to the dignity of the craft and help to place this branch of medicine on the high and important plane to which it is entitled.

Physicians' Account and Record Systems

By H. J. ACHARD, M. D., Chicago, Illinois

EDITORIAL NOTE.—The author of this paper has, for many months, made a careful and detailed study of the principal physicians' account systems on the market and presents here the results of his investigations. The more simply and withal the more completely physicians' records are kept, the better will be the financial results. A number of the systems described are advertised in this journal, and we advise our readers to correspond with the firms supplying them if they contemplate investing in this direction.

THE business side of the physician's work has, in recent years, been emphasized more and more; the many appliances and facilities which have been invented and elaborated for the purpose of facilitating the mechanism of a large business have in many instances been adapted for the use of physicians, and numerous are the "systems" and ledger or account devices which are advertised to the practitioner in more or less glowing colors, all of which are promised to save their users many hundreds of dollars. Not only this, but it has been properly urged that physicians should give up their old slipshod and haphazard methods of keeping and rendering their accounts, and that they should send out their statements monthly, something manifestly impossible or at least a considerable hardship unless the accounts are kept in a proper manner.

It Is Time to Turn a New Leaf

Whether this improved business-sense in physicians is the result of the increased cost of living, while in the face of this, our fees have remained at the old-time insufficient figures; whether it is due to a consciousness of our greater deserts because of the improved methods of treating disease and of our greater confidence in our ability to cope with it; or whether it is due to the fact that we, as a profession, have become tired of being considered as the worst business men as a class, and have decided to give up our old silly notions of what the dignity of our profession demands, does not need to be discussed here. Suffice it to say once more what has been said so often, namely, that we ourselves are to blame for the contempt in which our business abilities are held and for the unblushing effrontery with which we are made the prey of deadbeats and of persons who would not dare to cheat any other creditor out of his just dues. It is high time that we should mend our ways and that we insist upon a fair and prompt return for our services. Forgotten charges are apt to mean lost money, and carelessly kept books cause untold financial loss. Let us keep in mind the duties of our high profession, by all means, but let us also insist upon the necessity and upon our determination to receive a *quid pro quo* for our services. The more promptly we require payment of our accounts, the more apt our clients are to call us again in case of need.

With the stimulation of better business methods, it has also been emphasized that we as physicians cannot properly "follow up" our cases and lead them to a happy termination, unless we remember, not only the principal ailment or diagnosis, but all important data concerning the family and personal history of our patient; and this is only possible with the aid of written records of the cases we are called upon to treat. The importance of case-records embodying the advice and treatment given at each visit or consultation needs no vindication, for it is self-evident. It should be supplemented by written instructions to the nurses or attendants of our bed-patients.

Advantages of Indexing Current Literature

Finally, a physician whose daily work is done when he has seen his last patient and posted his last account, whose reading is limited to the daily papers, and who only occasionally and on the spur of the moment consults a textbook must inevitably and rapidly deteriorate. We cannot give our

patients the best services possible unless we keep informed of the progress of medical knowledge. This is not so much embodied in the textbooks, which in many cases are old at the time of their publication, but is best obtained from current literature and from review journals. It is evident that a striking paper on diagnosis, on treatment, etc., a particularly happy formula or device for treating certain conditions may be read and the reference forgotten, so as to be unavailable when wanted.

Thus it follows that some sort of reference list, tickler, or *index rerum* is indispensable for the recording of references and notes on any point that may strike us as important. That the noting down of such references or facts, while reading, consumes time cannot be denied, but it is of far greater advantage to read one journal article well, that is, to study it than it is to skim through the whole journal without retaining anything of value. The first is of benefit, the second is a waste of time. Moreover, the time spent in making and filing brief notes and references on interesting and important points will in the end aggregate far less than the time required to hunt through books, pamphlets and journal files for some poorly remembered bit of information which may be greatly needed. The work will be productive of a constantly increasing fund of information and will therefore prove of benefit both to ourselves and to our patients.

It is impossible to discuss in one single paper all the different points which I have just mentioned. I will, therefore, limit my present paper to the consideration of some of the many physicians' business "systems" on the market, and take up the question of references and of reading-notes of our literary studies in a future discussion. I am indebted to several firms for sending me complete outfits of their systems for inspection and for use, to others for literature illustrating their particular makes, and to still other firms for sending representatives with exhibits of their systems. In the following I will try to describe some of these systems, without personal bias, and shall leave the judgment to my readers.

It will not be necessary to speak of the old-style visiting lists that have been issued annually, for many years, by several medical publishers and which still continue in favor with many physicians. They furnish good daybooks and records of original entry, but labor under the disadvantage that the entries are made in symbols instead of in writing and that they require transferring to a ledger.

This work has been simplified by, for instance, Dr. Ralph Walsh of Washington, D. C., who publishes a visiting list in which one name entry is sufficient for a month's work. The ledger, a well-bound book of 10½ by 7 inches, provides one page for each name, this page showing the work done day by day in the course of one year. Walsh's system shares the disadvantage of the old-fashioned visiting lists, in that symbols are required for describing the office consultations, visits, etc., and since, e. g., for a visit necessitating a prolonged examination or some special service more should be charged than for a simple "sick-call," the recording of such different services presents difficulties.

Taylor's Account Book, published by *The Medical Council* (in two sizes—for the pocket and for the desk) is practically a ledger and therefore shows the itemized accounts readily. It does not show the total work accomplished from day to day.

The Leonard System, designed by Dr. C. H. Leonard and published by The Illustrated Medical Journal Company, of Detroit, offers an excellent daybook and a ledger, both of which can be used independently. The daybook (in two sizes—for the pocket and the desk) gives ample space for entering accounts for services rendered, the client's name being entered once a month in the desk-book. The ledger gives a clear record of the work.

Several other account books or ledgers are on the market, which have good features, either in one or the other direction, but usually at the expense of some other important feature.

All these lists merely record the amount of work done either on a certain day or in a month or year, or then for a certain client. They do not preserve any information

concerning the "case" or cases treated. This requirement has become very acute in recent years, because the old way of either recording case-histories in bound "journals" or on loose slips (which were usually lost), or not at all, was found unbearable. Many systems have been invented, intended to meet the requirements of daybook, ledger, and journal, and most of them have some features to recommend them.

The loose-leaf system was adapted for the use of physicians by The H. C. Miller Company, of Chicago. Their ledger leaves for physicians are 7½ by 10½ inches in size. On the first page they are arranged for the ledger, to contain the account of work done for one patient. The back of the sheet contains space for the patient's record: history, result of examination, treatment. This system appears simple and easily kept. It is well adapted for the needs of physicians who desire to keep brief and concise records about their patients. Two hundred leaves are bound in a handsome binder of Russia leather and corduroy, and any single sheet can be removed in a moment. Of course, a daybook must be kept concurrently.

For case-records alone, the editorial staffs of *American Medicine* and of *The Interstate Medical Journal* have prepared case-record books which are excellent in their way. They are described in CLINICAL MEDICINE for December, 1910, p. 1376, and March, 1911, p. 345.

Card Indexes

Since the origin and development of the card index as an elastic means of keeping all possible kinds of records, the principle has, of course, been largely employed, not only for physicians' records, but for their accounts as well. A great many ready outfits, more or less well adapted and serviceable, are on the market, and I have the impression that the card index is the most frequently employed by physicians, not only for case-records and accounts, but also for reading notes and references, for memoranda, and the like.

For many years I myself have used a very simple system of this sort, one which consists of account cards and record cards. The latter are ruled, plain, and at the time of consultation or visit all important data are noted down. In this manner I succeeded in keeping, not only my accounts, but also my case-records complete, and have found the plan to work well. The important point is to note down all remarks as well as the charges at the time of consultation, in the presence of the patient. If this is neglected a single time, it will in all probability never be done afterward.

Among the many similar systems on the market, usually put up in the form of desk-trays, I may mention that of *The Physicians' Drug News*, of Newark, N. J., which concern is offering a card ledger which is very convenient. Their system is supplied in a desk-tray containing 500 ledger cards, three by five inches, and ruled on both sides, and two sets of alphabetical guide-cards, for open and for closed accounts. Their ledger cards show, not only a debit and a credit column, but also a balance column—an improvement over my own, in that the exact amount due is always shown. Last year a further improvement was made by printing the ledger form on the face of a strong manila envelope, six by four inches in size. Within the envelope are placed the slips containing records, prescriptions, temperature-charts, and other notes on the case, plain-ruled cards of thin paper, 3½ by 5½ inches, being provided for this purpose. The president of the company, in a personal communication to me, said: "If I were in the practice of medicine, I should use this form, because then everything is right where you can put your hands on it at any time." (Price $3.00.)

A very acceptable adaptation of the card-index idea is offered by The Ever Ready Manufacturing Company, of Cincinnati. They supply ledger and record cards in three sizes, three by five, four by six, and five by eight inches, in single or double-drawer cabinets of from 1000 to 1200 cards' capacity. The general plan follows the arrangement of open and closed accounts. All sizes are furnished, some so ruled that one year's services are accounted for, while other cards may be substituted with less complicated ruling. The

latter are in so far preferable as they permit the original entry of the kind of service rendered, the former requiring symbols on account of the small space available.

While the blank reverse of the smaller cards may be used for case-histories, these are specially provided for (ruling, blanks, etc.) in the larger sizes. Moreover, special history-cards are furnished. Of particular value is a four-by-six card, the face of which is intended for the history, while the reverse is ruled for a temperature-chart, with space for records on bowel movements, urine, pulse. Still another card has diagrams for recording graphically the result of chest examinations. As a whole, the "Ever Ready" is an excellent system and comparatively low-priced ($3.00 to $8.00). It would be very easy to file, with each ledger card, the histories of the cases written on blank cards of the same size, so that the records could be kept complete.

These two instances may suffice to illustrate the card-index ledgers and records on the market. The many systems of this kind differ less in essentials than in details, and especially in the arrangement of the history-cards, particularly where these are used by specialists. The card-index systems require, in addition, the keeping of a daybook, in order to plan and arrange the work for each day and to account for the amount of work done on each day. Any one of the many little diaries sold for a few cents will serve excellently.

The advantages of the card-index and of the loose-leaf systems have been combined very happily in a number of physicians' systems put on the market in the last few years, and which I will describe as concisely as possible, without becoming obscure.

A Compact Loose-Leaf System

The Kirby System Company, of Detroit, offers a loose-leaf system as "inexpensive, compact, simple." It consists of a filing cabinet, four by six by ten inches, one set of alphabetical guide-cards, one seal-leather pocket-case with clamps to receive the perforated ledger and history-sheets and supplied with an index, 1000 case-history and account records, 250 filing envelopes, supply of obstetric record sheets, nurses' address sheets and weekly-call sheets. The weekly-call sheets supply the important place of the daybook, offering space for recording visits paid and to be paid. The cash sheets which are also furnished are to contain a list of finished accounts which are not yet paid and also serve as an expense account. The case-history and account records are to contain full ledger accounts for each patient, on the face of this sheet, and also records for symptoms, temperature, pulse, etc., for twenty-three visits. The reverse of the sheet is ruled for notes on the family and personal history and on the results of examination of urine, blood, and sputum. The entries are all made at the bedside or during consultation, and when the case is terminated, the sheet or sheets are placed in an envelope for filing in the cabinet.

This system is very simple and very efficient. It permits the original entry of all desirable data at the time of visit or consultation, is compact and easily handled. For my personal use, I should want the history sheets a little more complete or, better, I should want blank sheets for fuller records than the regular sheets have space for. I should also want diagrams for graphical records of examination. This is not written as a criticism, but as a suggestion for developing this really meritorious system, which is, moreover, quite inexpensive.

The Physicians' Record System

One of the best and most carefully elaborated systems is the Physician's Record System marketed by The Physician's Record Company, of Chicago. This system consists of history and charge sheets, 5½ by 7¼ inches in size, which folded once are easily carried and used in a leather case supplied for that purpose. These sheets offer space for all particulars of interest in the case and for fairly good notes at each visit or consultation. On the back they have diagrams of chest or other parts of the body, according to the kind of sheet used. The latter are supplied for general, surgical, gynecological, obstetrical, tuberculosis, genitourinary, eye, nose and

ear, and throat and pharynx cases. Each is appropriately illustrated and contains the proper headings and printed matter. Besides the history sheets, cards are furnished, 3½ by 5½ inches in size, in different colors, for recording the results of uranalysis, blood analysis, and gastric-content examination. The results of sputum examinations are recorded on the special history sheets for tuberculous cases.

For ultimate filing, envelopes are supplied which will hold the history sheets, laboratory records, and prescriptions, as well as any other memoranda concerning the case. For the use of the history sheets at the bedside, a large and convenient pocket-case of grain seal leather, wallet-size, is furnished. This case is provided with a flat writing surface, so that history sheets may be written without removal from the case. Provision also is made for fastening the prescription pad in the case, permitting the prescription to be written without removal. In the side of the case is a large pocket for carrying a supply of history sheets. Two smaller pockets in the body of the case are used for filing material until the office is reached.

It is a good idea, here as in all other systems and even when no particular system is used, to write prescriptions in duplicate, handing the carbon copy to the patient and retaining the original copy to be filed with the other records.

The envelopes containing the complete records of each case are filed in a cabinet furnished in two- and four-drawer capacity. According to the number of drawers used, the files may be subdivided into current and finished cases, and each one in paid and unpaid, or in any other manner that may suggest itself, according to the individual requirements of one's practice.

One acceptable feature of the system is the monthly balance sheet on which the daily cash and charge business as well as the daily cash receipts are recorded. There are also blanks for reminding clients of accounts past due, delinquent statements, legal demand for payment, and five-day notices, each a somewhat more emphatic demand for payment than the preceding one. Undoubtedly this is one of the most complete and efficient systems on the market and is, moreover, quite inexpensive. I understand that, in addition to the oak cabinets in stock, the makers are offering a cabinet made of cardboard and covered with cloth.

(*To be continued.*)

The General Practitioner as a Gynecologist

Everyday Helps for Routine Work

By GEORGE H. CANDLER, M. D., Chicago, Illinois

II

THE "knee-chest" position is occasionally the best in which the woman can be placed. It is called for when replacing a retroflexed uterus—gravid or ordinary—when replacing a vaginal hernia and when lifting a tumor-mass that has descended into the pelvis back into the abdominal cavity. The opening of the vaginal orifice, when the patient is in this position; allows air to enter and the retroflexed uterus falls forward; tampons can then be introduced easily, to maintain the organ in normal position.

Not infrequently it is desirable to instruct the patient to assume this position for ten minutes daily—preferably before retiring. When the pelvic organs are inclined to prolapse, the frequent assumption of the knee-chest position proves decidedly beneficial. Two fingers should be passed into the vagina when the position is assumed, and air admitted. The woman should kneel and then bend forward till her chest rests upon the table or bed; the head is turned sideways and the cheek rests either upon the folded arms or a low pillow. The thighs should be *vertical*, to insure proper elevation of the pelvis.

The Trendelenburg posture is rarely called for in office-work, but it may be employed if it is desirable to empty the pelvis of the intestines or where it is essential to secure an upward movement of the uterus in patients who, for any reason, cannot assume the knee-chest position.

Before attempting to treat diseases of the pelvic organs, it is well to review one's knowledge of the regional anatomy. Any good modern work upon gynecology will afford the desired information; experience alone will enable the physician to detect—by touch or sight—many minor disorders. By proceeding along certain definite lines, however, most abnormalities will be discovered, and if a rational treatment for the conditions known to exist is instituted, satisfactory results will be secured in the majority of cases.

The Preliminary Examination

In nearly every instance, a preliminary questioning of the patient will serve to give some idea of the character and location of her trouble. For instance, a stout single woman of forty complaining of an obstinate leucorrhea, menorrhagia, pain in the region of the uterus, with a sense of weight and difficult micturition, will, nine times out of ten, be found to suffer from fibromyoma. A married and hitherto barren woman might, under similar conditions, be pregnant. It is well, however, even when the patient is unmarried, to auscult carefully before declaring, definitely, a discovered "tumor" to be fibroid. More than one such "benign growth" has confounded the hasty doctor by being delivered at term and squalling lustily.

In a case of this kind, a thorough examination of the abdomen must be made and may prove sufficient. The shape and density of the growth will usually enable the examiner to exclude vesical disease, pregnancy, ovarian cysts, ascites, etc. If, however, the patient is obese, the contour of the abdomen may be similar in all these conditions and a definite diagnosis can only be arrived at after a careful bimanual examination.

A superficial examination, on the contrary, will be sufficient when the woman gives a history of profuse discharge from the vagina, with burning and itching of the parts—especially after micturition, which is unpleasantly frequent—these symptoms coming on a few days after coitus. The reddened vaginal orifice, from which a yellowish discharge oozes, will be found exquisitely tender and pressure upon the urethra, through the anterior vaginal wall, will cause a drop of pus to exude from the meatus. The diagnosis of acute specific urethritis can be made without further manipulation of the parts, and the wise physician will refrain, under such circumstances, from introducing speculum and sound, lest gonorrheal endometritis and salpingitis be engendered.

It will be noted that the women in both instances complain of a vaginal discharge and frequent, painful micturition, but all the antiseptic douches known would not stop the growth of a fibroid or relieve the intrapelvic conditions causing the leucorrhea, and, as a matter of fact, it will require more than the ordinary antiseptic douche to cure a specific urethritis. The absurdity of prescribing for a "leucorrhea," without positively ascertaining its origin, is surely sufficiently evident. True fibroma and an acute gonorrhea may, of course, be present at the same time, but the very evident recent infection must receive attention before any attempt is made to approach the uterus through the vagina.

Inspection of the External Genitalia

In practically all cases, it is desirable—though not always possible—to examine the external genitalia before making a digital or instrumental exploration. The normal appearance of the parts is, of course, well known. The diseases discoverable by inspection are: pruritus, vulvitis (specific or simple), kraurosis of the vulva, abscess, ulcers (either simple, tuberculous, syphilitic or chancroidal), pudendal hernia, carcinoma, adenoma, condylomata, malformations, traumatism. Upon separating the vulvæ, adhesions of the labia minora and the prepuce will be detected, as also, in virgins, any abnormality of the hymen. Imperforate hymen is not so rarely en-

countered as some writers would have us believe, and this condition often may prove the real cause of a whole train of puzzling symptoms. In women who have borne children, more or less extensive lacerations —perineal or vaginal, or both—may be revealed.

Occasionally the doctor is called to stop a persistent hemorrhage from a hymen ruptured during coitus. The application of a cone of gauze dusted with iron-alum or stypticin usually will suffice, but occasionally it is necessary to throw a ligature around the bleeding tag of tissue, while in rare instances it becomes necessary to trim away the remnants of the hymen, catching any bleeding points in the artery-forceps and maintaining pressure for a few minutes. An astringent antiseptic unguent is then applied and the vaginal orifice packed with gauze. An unusually resistant hymen may prevent coitus and the physician be asked to remove the obstruction. A crucial incision should be made under aseptic conditions and the vaginal orifice dilated. A few strips of gauze buttered with carbenzol or resin ointment are inserted and left in place for forty-eight hours. Coitus should be prohibited until the fourth day.

Caruncles and Vaginismus

Urethral caruncles (small vascular tumors situated as a rule on the margin of the external meatus) cause intense distress, and whenever a woman complains of pain in the region of the urethra, with smarting and burning during urination, their presence should always be suspected. Occasionally more than one caruncle will be found, and quite as rarely the growth will be discovered within the urethra. When pedunculated, a caruncle may be readily snipped off with the scissors, a few drops of cocaine solution (4 percent) having first been applied to the mucosa. Sometimes a caruncle resembles a ripe raspberry and bleeds at the slightest touch; these are, as a rule, the most painful tumors. The friction caused by walking or even by the contact of ordinary clothing may, in such cases, cause intense agony, which is of course accentuated during urination.

Not infrequently vaginismus is coexistent, so that coitus is rendered impossible. The physician who treats the vaginismus and omits to extirpate the caruncle is bound to make a dismal failure. Sessile or large caruncles should be excised under general anesthesia, the growth being lifted up well with small mouse-tooth forceps and removed with curved scissors. The incision may be closed with a few fine gut sutures. Dress with sterile gauze, preferably covered with an unguent or carrying an antiseptic oil. Caruncles within the urethra must be exposed with a speculum and removed in a similar manner.

Carcinoma and sarcoma of the urethra are rarely encountered, and these demand radical surgical treatment. In most instances the vulva or the vagina are primarily involved.

Retention cysts of the urethral glands are sometimes met with, but, unless large enough to obstruct the flow of urine, they seldom attract attention. Should palpation reveal their presence, pass a urethral speculum (first anesthetizing the canal) and clip off the sac. The base may be touched with pure carbolic acid, neutralizing with alcohol after two minutes; be careful, though, not to cauterize the normal mucosa.

Polypi which protrude from the meatus may be twisted off; growths buried in the canal are exposed with the speculum and snipped off. In all these conditions, anesthaine proves a more effective anesthetic than cocaine. Equal parts of carbenzol, antiseptic and olive oils applied on sterile gauze constitutes the ideal dressing.

Hooded Clitoris and Redundant Prepuce

A hooded clitoris or redundant prepuce requires attention: in young girls, the irritation from these conditions is apt to cause masturbation or even set up a serious neurotic condition, while in married women, the occluding prepuce acts to prevent normal titillation of the clitoris during coitus, thus frequently delaying or precluding the orgastic climax. Large numbers of sexually frigid women would become normally ardent were they properly circumcised.

The operation of circumcising women is simple and the work can be done under local anesthesia; still, it is more satisfactory to give a few whiffs of chloroform and a tablet of hyoscine, morphine and cactin. If a hypodermatic injection of the latter is given one hour before the operation, a very few drops of chloroform will suffice, especially if the parts are first brushed over with anesthaine or other anesthetic.

After thoroughly cleansing the area, pick up the prepuce on each side of the glans clitoridis with fine tissue-forceps and stretch it, then, with a pair of sharp, straight scissors, divide the preputial tissue along the dorsum of clitoris, exposing that organ thoroughly. Cut away the flaps and unite the edges on each side with fine catgut sutures. Dust with europhen, thymol iodide or other nonirritant (impalpable) powder and apply a pad of gauze. The dressing should be changed daily at least.

Not infrequently the prepuce is adherent to the glans, the condition setting up a whole train of reflex nervous disorders. The adhesions are easily broken up with a blunt probe, after which the surfaces must be kept separated till healing takes place, by the insertion of a small piece of gauze smeared with resin ointment or other oleaginous antiseptic.

Now and again the clitoris is absent or rudimentary; more often the organ will be found hypertrophied. In each case treatment is useless. Cliterodectomy is too serious an operation to be performed at the office and is rarely called for.

Wounds of the Vulva

Wounds of the vulva are subject to the usual classification: they may be aseptic or septic, contused, incised, lacerated or punctured. Incised or lacerated wounds upon the vulva of a gonorrheal subject are apt to prove exceedingly troublesome.

Subcutaneous wounds (contusions) are usually the result of a fall upon some hard body or of assault. Children criminally attacked and young women, victims of drunken or violent a ravisher, may present extensive contusions. Not at all infrequently girls riding on high-pommeled saddles bruise the labia severely.

The treatment is simple and efficacious. The parts should be bathed with *very hot* epsom-salt solution (1 ounce to 1 quart) and compresses wrung out of a mixture of 1 part each of aqueous extract of calendula, fluid extract of hamamelis, glycerin, and 4 parts of water applied, these to be changed constantly. The patient must remain in bed, with elevated hips, for a day or two. If the skin is abraded, paint over with a *diluted* tincture of iodine *after* using the magnesium-sulphate fomentation.

Should pus form, evacuate it; flush the cavity with pure hydrogen-dioxide solution, and, after frothing ceases, with warm boric-acid solution, 20 grains to the ounce. A strip of gauze saturated with an antiseptic oil or with thymol iodide in oil is inserted and a T-bandage applied.

The bleeding from incised wounds of the vulva is usually profuse, but this hemorrhage can be controlled by pressure. If any large vessel is cut, it should, of course, be ligated. Ordinarily the hair should be removed with scissors and razor, the surface washed thoroughly with an antiseptic soap or creolin and water and the wound closed with interrupted sutures. The line of incision may be painted with iodine or equal parts of camphor and carbolic acid rubbed up together. A piece of gauze saturated with an oleaginous antiseptic is applied next the skin and over this a liberal pad of plain sterile gauze. The dressing is held in place with a T-bandage. Great care must be taken to approximate the entire surfaces of the wound, or else pus-pockets will be formed and cause trouble.

If the lesion is known to be infected, cleanse in the ordinary way and then with a camelshair brush paint the entire surface of the wound with diluted tincture of iodine, pure oil of turpentine (medicinal) or phenol-camphor; place a few strands of fine catgut in the bottom of the lesion and bring the ends out at the most dependent angle of the incision. The suture should be deeply placed. Dress with bichloride gauze, changing the dressings daily.

Treatment of Lacerated Wounds

Lacerated wounds will require the most careful attention. The injury to under-

lying tissues may be extensive, and more or less sloughing with severe secondary hemorrhage usually occurs.

The first dressing means much. Ligate even small vessels, trim away any devitalized edges and irrigate the wound thoroughly with warm salt water. Any denuded areas should be painted over with pure oil of turpentine (Merck) or iodine (dilute), and a *dry* pad of bichloride or chinosol gauze applied. Do not bandage tightly; improve local circulation by placing hot-water-bags near the part. Support the patient's vitality; strychnine, nuclein, and cactin are always beneficial.

If sloughing does occur, change the dressings twice daily, using gauze saturated with this solution: echinacea, 1 ounce; thuja (nonalcoholic extract), 1 ounce; water, 8 ounces. A strand of gauze may be gently pushed down into any cavity, to secure drainage. At each dressing, irrigate freely with peroxide of hydrogen solution, flushing the resultant foam away with boric-acid solution. Hot moist gauze pads should be applied continuously. Deep collections of pus must be drained by making a counter opening in the most appropriate place and inserting a drainage tube. The practician will find severe contusions of the vulva about the most troublesome injuries he will have to deal with.

Hematomata, or Blood Cysts

Pregnant women with varicose veins are apt to present blood-cysts. Labor sometimes causes the formation of a hematoma, and I have seen an extensive effusion follow the unusual effort of carrying a heavy child upstairs. Kicks, falls and straining at stool are other exciting causes. The condition is of course easily recognized. The tumor usually (though not invariably) appears suddenly and the purple swelling proves sufficiently startling to lead to the prompt calling of a physician.

The treament is simple in such cases. Incise, turn out the clots, and flush the cavity with a weak iodine, 1 : 1000 bichloride or a chinosol solution, then pack fairly tightly with sterile gauze. If the oozing is persistent, dust the gauze with stypticin. Sometimes it may be necessary to ligate a larger vessel. The patient may advantageously receive a few small doses of atropine. An enormous hemotoma may form during childbirth; sometimes such a tumor will extend into the vagina and beyond the external vulval border. The treatment just outlined applies to a recent lesion, but now and then the accoucheur encounters an encapsulated mass which quite probably will interfere seriously with delivery. If time permits, the sac should be dissected out and the wound packed and sutured, collodion being painted thickly over the line of incision.

An infected hemotoma must be treated as an abscess (which see). On no account should a vulval hemotoma be left to get well "by absorption." Its proximity to the vagina and anus makes infection and consequent suppuration almost a foregone conclusion.

Simple Vulvitis

This comparatively common affection is readily recognized, but the cause is not always as easily ascertained. Too frequent or rough coitus, masturbation, horseback or bicycle riding, trauma, and irritation of tight clothing may produce a vulvitis. One intractible case encountered was due to handling the pudenda after picking a sore nose. Migrating pinworms have set up a severe vulvitis in a girl of fifteen. Acrid discharges frequently cause inflammation of the vulva, especially in those who neglect to bathe frequently. The gynecologist must never be satisfied with a diagnosis of simple vulvitis unless he has definitely ascertained the cause for its existence and been able to exclude more serious disease elsewhere. The discharge should in every doubtful case be examined: it is not always easy to distinguish the simple from the specific form.

In acute vulvitis, the vulva will be found red, hot, and swollen. At first dry, the mucosa soon becomes bathed with a profuse mucopurulent secretion. Not infrequently the inner surfaces of the thighs are excoriated, the perineum and anal cleft often being involved. The patient complains of stinging, burning and smarting, accompanied sometimes by a sense of fulness

of the parts—"as though they would burst open." The odor of the parts is offensive, even in the cleanly; obese and careless patients are almost intolerable.

The practician, in some cases, must make his diagnosis slowly, even though he institute immediate treatment, for medicolegal entanglements may arise. Young girls may present a vulvitis and their parents accuse some man of indecent assault. In such cases, the absence of the Neisser bacillus may mean much or also nothing. If the accused have a gonorrhea and the gonococcus is found in the secretion, the evidence is, of course, of a positive character; but even should the girl be otherwise healthy, an acute simple vulvitis is no proof of her having been tampered with. Contusions or abrasions, if present, would of course materially strengthen the evidence. Wives contracting a vulvitis sometimes suspect their husbands of infidelity. The physician who values his own peace of mind will refrain from making definite statements in such cases—unless, indeed, he has positive facts to support him.

The prognosis is practically always good; though strumous children sometimes prove rebellious to treatment.

Treatment of Vulvitis

Put the patient to bed. Empty the bowels with a few small doses of calomel and podophyllin followed by a laxative saline draught. Give thin barley water as a beverage. Wash the parts thoroughly with carbenzol or some similar antiseptic soap and warm water. Order a thorough flushing of the parts, every four hours, with a warm solution of zinc sulphocarbolate, 1 dram to the pint, to which 2 drams of boric acid may be added. Chinosol in 1 : 1000 solution is also an excellent application. For forty-eight hours, or until the inflammation subsides, gauze saturated with a preparation of calendula, thuja, and hamamelis should be kept constantly between the labia; as conditions improve, equal parts of resin ointment and carbenzol may be applied on gauze. Still later the parts should be dusted with a mild borated dusting powder.

In the more severe forms the formula that has proven most useful in my hands contains methylene-blue, thuja (concentration), resin cerate, lanum, and vaseline. The parts must, of course, be covered with a napkin, to prevent staining of the linen. This preparation is of signal service also in specific vulvitis. Of late years I have discarded bichloride solutions entirely.

If there is any temperature, the exhibition of aconitine of course will suggest itself. Minute doses are of service in the early stages nearly always. If pain is a feature, alternate with hyoscyamine. Strumous children or anemic girls may advantageously receive the nucleinated phosphates or the triple arsenates of iron, quinine, and strychnine.

(*To be continued.*)

I EARLY learned that from almost any stream in a trout country the true angler could take trout, and that the great secret was this, that whatever bait you used, there was one thing you must always put upon your hook, namely, your heart. When you bait your fish with your heart your fish will always bite; they will jump clear from the water after it; it is a morsel they love above everything else.

—John Burroughs, from "In the Catskills."

Aretaeus, The Forgotten Physician

By VICTOR ROBINSON, New York City

Whatever the final judgment may be, one thing stands out as certain—after Hippocrates, no single Greek author has equalled Aretæus, and no work in the entire literature so nearly approaches to the true spirit of Hippocratism, both in description of disease and in therapeutic principles, as the work of the Cappadocian.—Neuburger: "History of Medicine."

Aretæus is one of the most original and eloquent writers of antiquity. Starting with a thorough acquaintance with the science of his day, taking Hippocrates as his model, and repudiating all futile speculations, he details the simple results of his own experience, in a systematic treatise of eight books on the history and treatment of acute and chronic diseases, and in a manner so striking and appropriate as rarely to have been excelled.

Watson: "Ancient Medicine."

"WHO is Aretæus?" asked a distinguished professor of Johns Hopkins University, on seeing the Cappadocian's name on a program.

This question could well echo answerless throughout the medical world until it reached a medical historian. For Aretæus is a forgotten physician. A name once high in medical annals has fallen low; a star which once shone next to Hippocrates has lost its luster. Who is Aretæus?

Galen, Avicenna, and other physicians of antiquity became authorities in the Middle Ages; during this long period, Aretæus was unknown, and his oblivion still survives.

It is difficult to mention a subject or author who is not indexed at the Astor Library, but Aretæus has not a single card. This means obscurity indeed.

Clio seems more solicitous of the destroyers than of the healers of men. We know when the Duke of Alva was born, and are not in doubt of the day of Attila's death. But we do not know whether the discoverer of the pulmonary circulation of the blood was born in 1509 or in 1511; we are uncertain whether the father of modern surgery came into the world in 1510 or in 1517; with regard to Paulus Ægineta, the guesses are wider: Le Clerc says he belongs to the fourth century; Van der Linden says he was born in the fifth century; Sprengel says he lived in the seventh century; Vossius says nothing.

So far as Aretæus is concerned, there is a similar latitude of opinion; we have the consolation of knowing that he lived either in the first, the second or the third century. One reason for this uncertainty is that Aretæus quoted no author except Hippocrates; and no authors quoted him, except Ætius and Paulus Ægineta, and, as both of these writers lived considerably after the time of Aretæus, their reference to him furnishes no clew as to his period. He is also mentioned in the "Euporista," formerly attributed to Dioscorides. If this were indeed the work of Dioscorides, it would practically solve the problem, as it is almost universally admitted that Dioscorides flourished in the first century. But it is now agreed that "Euporista" is not the composition of Dioscorides, but the work of a later age. According to the learned Francis Adams, the circumstance that neither Galen nor Aretæus mention each other, proves they were contemporaries.

There is even a conflict as to whether he belonged to the pneumatic school, or the school of eclectics, or to any school at all. In truth, had he founded a school, let it be as irrational as isopathy, his fame would be more secure.

It is quite certain that Aretæus lived in Alexandria, as he makes numerous references to the habits and therapeutics of the Egyptians; it is also probable that at some time he resided in Italy, as he is familiar with the various brands of Italian wine: Fundan and Falernian, Signine and Surrentine. But all the biographic data that we know with certainty can be expressed in one short sentence: Aretæus, a Greek physician of a Roman province in Asia Minor, described diseases in admirable Ionic.

As he is invariably called Aretæus the Cappadocian, we may say a word concerning this territory. In the time of Herodotus, Cappadocia occupied a considerable portion of Asia Minor, extending from Mount Taurus to the shores of the Euxine. It was originally an independent kingdom, but

the Persians divided it into two satrapies, one of which became known as Pontus, while the inland province retained its name of Cappadocia. Now began sanguinary struggles, and there were endless intrigues, assassinations, murders, slaughters, cold-blooded cruelties without beginning or end. In the year 17, Cappadocia became a Roman province, grew and prospered, and produced St. Gregory, the still-celebrated ecclesiastic, and Aretæus, the physician, who is forgotten.

But though the ever-falling dust of time has almost covered him over, it cannot make the name of Aretæus as if it had not been; for Aretæus has reared unto himself a monument more enduring than brass—what say you, Quintus Horatius Flaccus? His seven-arched structure was as follows:

Diseases, Therapeutics, Fevers, Surgery, Prophylaxis, Gynecology, Pharmacy.

It is, true the dome has fallen and the base has disappeared, but enough remains to demonstrate that Aretæus was one of the greatest of ancient physicians.

Aretaeus as a Descriptive Writer

It is a delight to read Aretæus: he is not superstitious; his mind is not befuddled with outlandish theories; he is clear, rational and scientific; he does not indulge in any of those mystical speculations which disfigure the pages of Paracelsus. Moreover, he is a stylist. No doubt the strangest passage Aretæus ever wrote was his fantastic account of the uterus: "In the middle of the flanks of women lies the womb, a female viscus, closely resembling an animal, for it is moved of itself hither and thither in the flanks, also upwards in a direct line to below the cartilage of the thorax; and also obliquely to the right or the left either to the liver or spleen; and it likewise is subject to prolapses downwards, and, in a word, is altogether erratic. It delights in fragrant smells, and advances towards them; and, it has an aversion to fetid smells, and flees from them; and, on the whole, the womb is like an animal within an animal."

No medical author surpasses Aretæus in his vivid portrayal of disease. When he describes consumption, we are not obliged to read the symptoms twice to make a diagnosis. We actually seem to hear the hoarse chronic cough, the clearing of the throat, the blood and pus spat up; we notice the sweats, the pallor, the cadaverous aspect; we see the bony fingers, the thickened joints, the curved nails, the sharp and slender nose, and the prominent Adam's apple; we see the narrow chest, the lips drawn over the teeth, the muscles of the arm gone, the ribs sticking through the skin, the shoulder-blades projecting like wings of birds, and the eyes hollow and brilliant.

He Graphically Describes Numerous Diseases

His descriptions of tetanus, epilepsy, hysteria, and asthma have been especially praised, but his picture of satyriasis is as powerful as any: "Satyrs, priests of Bacchus, in the paintings and statues, have the phallus erect, as the symbol of the divine performance. It is also a form of disease, in which the patient has erection of the genital organ, the appellation of satyriasis being derived from its resemblance to the figure of the god. It is an unrestrainable impulse to connection; but neither are they at all relieved by these embraces, nor is the tentigo soothed by many and repeated acts of sexual intercourse. Spasms of all the nerves, and tension of all the tendons, groins, and perineum, inflammation and pain of the genital parts, redness of countenance, and a dewy moisture. Wrapped up in silent sorrow, they are stupid, as if grievously afflicted with their calamity. But if the affection overcome the patient's sense of shame, he will lose all restraint of tongue as regards obscenity, and likewise all restraint in regard to the open performance of the act. Raving with his obscene imagination, he cannot contain himself; tormented with thirst, he vomits much phlegm, and the foam sits on his lips as in a lascivious goat, and he has a smell like that animal." Strangely enough, the author of the above had no knowledge of nymphomania, and even denied its existence.

Among other disorders which he treats in an interesting manner are: migraine, jaun-

dice, elephantiasis, leucorrhea, hemoptysis, pneumonia, diarrhea, aortitis, cephalalgia, angina, dropsy, gonorrhea, dysentery, apoplexy, phrenitis, cachexia.

In his writings we find, for the first time, an account of diphtheria. The description is well done, except as to the etiology. There were giants in those days, but no compound microscopes, and Aretæus knew not the Klebs-Loeffler bacillus. He is the first European who wrote a systematic account of diabetes.

He was probably the first to use the trephine in epilepsy. He likewise had knowledge of tracheotomy. But his greatest claim to our consideration is his practice of auscultation. Dr. Cordell, professor of the history of medicine in the University of Maryland, believes Aretæus is the only one of the ancient writers who auscultated the heart. Rene Laennec, inventor of the stethoscope, had a renowned forerunner.

He distinguished between the paralyses of motion and of sensation, and knew that injuries to the brain produce paralysis on the opposite side. He divided mental disturbances into mania, melancholia, and settled insanity—not a bad classification.

He described lead colic and other disturbances due to lead poisoning. In obstruction of the urethra by vesical calculus, he employed the catheter. He removed stone by incising below the scrotum, and cutting inward to the neck of the bladder until there was an escape of urine and calculi. He deserves credit for his endeavors to found pathology upon an anatomical basis.

Aretæus seems to have understood the direction of the blood flow in the veins; if so, he knew more than the physicians of subsequent centuries.

Aretæus had few queer notions. It is true, in conformity with the custom of his age, he was too fond of venesection, but he always warned against excess of bloodletting, claiming it was better to err on the side of chariness. He believed castor was a remedy in all diseases of the nerves, and that white hellebore would vanquish any case of gout. For this we must not blame him severely, for there is scarcely a physician who has not at least a pair of old standbys by which he swears.

Was a Careful and Nice Observer

An idea of the nicety of his observations may be gained from a random passage. In discussing methods for procuring sleep Aretæus writes: "Gentle rubbing of the feet with oil, patting of the head, and particularly stroking of the temples and ears are effectual means; for by the stroking of their ears and temples wild beasts are overcome, so as to cease from their anger and fury. But whatever is familiar to anyone is to him a provocative of sleep. Thus, to the sailor, repose in a boat, and being carried about on the sea, the sound of the beach, the murmur of the waves, the boom of the winds, and the scent of the sea and the ship. But to the musician, the accustomed notes of his flute in stillness, or playing on the harp or lyre, or the exercise of musical children with song. To a teacher, intercourse with the tattle of children. Different persons are soothed to sleep by different means."

Here is a bit of psychology which every medical man will endorse: "This is a mighty wonder that, in hemorrhage from the lungs, which is particularly dangerous, patients do not despair, even when near their end. The insensibility of the lungs to pain appears to me to be the cause of this; for pain, even when slight, makes one fear death. In most cases pain is more dreadful than pernicious, whereas the absence of it, even in serious illness, is unaccompanied by fear of death and is more dangerous than dreadful."

There is another sentence which I wish to quote, as it will arouse a response from every physician who has been called at the last moment or when there was no hope for recovery: "If you give a medicine at the height of the dyspnea or when death is at hand, you may be blamed for the patient's death by the vulgar." What a world of reserve and dignity is in this simple remark! The shoulders of Aretæus the Cappadocian were broad enough to wear becomingly the mantle of Hippocrates.

Twenty centuries ago Aretæus knew the knack of driving a point home by a good

story. Wishing to illustrate that the gout may intermit, he relates that a person subject to gout won the race in the Olympian games, during the interval of the disease. And he closes his chapter on melancholy thus: "A story is told, that a certain person, incurably affected, fell in love with a girl; and when the physicians could bring him no relief, love cured him. But I think that he was originally in love, and that he was dejected and spiritless from being unsuccessful with the girl, and appeared to the common people to be melancholic. He then did not know that it was love; but when he imparted the love to the girl, he ceased from his dejection, and dispelled his passion and sorrow; and with joy he awoke from his lowness of spirits, and he became restored to understanding, love being his physician."

Aretæus shows himself a true physician by his concern and sympathy for the patient, in small matters and great: "Inunctions are more agreeable and efficacious than fomentations; for an ointment does not run down and stain the bed-clothes—a thing very disagreeable to the patient—but it adheres, and, being softened by the heat of the body, is absorbed. Thus its effects are persistent, whereas liquid preparations run off."

Elsewhere occurs this noble phrase, rarely equaled and never bettered: "When he can render no further aid, the physician alone can still mourn as a man with his incurable patient: This is the physician's sad lot."

Some authors call their work "a confession." This is unnecessary, as all writing is autobiographical. Write, and in spite of your best efforts at concealment, your feelings, passions, prejudices, predilections, your good qualities, wisdom, sympathies, will become apparent; where you least expect it, you will give yourself most away; your true self will lurk between the lines, and it will peep from the pages.

I am confident that, from the excerpts here given, the reader has already formed a high opinion of Aretæus. If ever a man cast credit on the art of healing, it was this lofty-souled Cappadocian. He was a disciple who not only followed in the footsteps, but caught the spirit of the immortal Father of Medicine. Aretæus should not be a forgotten physician, for no one better than he could repeat with decorum the soul-testing Hippocratic oath:

"With purity and with holiness I will pass my life and practice my art. Into whatever houses I enter, I will go into them for the benefit of the sick, and will abstain from every voluntary act of mischief and corruption; and, further, from the seduction of females and males, of freemen and slaves. Whatever, in connection with my professional practice, or not in connection with it, I see or hear, I will not divulge, as reckoning that all things should be kept secret. While I continue to keep this oath inviolate, may it be granted to me to enjoy life and the practice of my art, respected by all men at all times. But should I trespass and violate this oath, may the reverse be my lot!"

Autumn

There's autumn in the air.
I do not know from where
It comes, nor why I know,
But the full winds that blow
Are done with summer rest;
The colors in the breast
Of the strong hills grow deep
With shadows that slow creep
Toward winter. There's a mirth
Which laughs across the earth
Too wildly, lest the grief
Of summer find relief
In tears.
Whence comes the word
The startled gardens heard?
Who whispered 'neath his breath
Of that white silence—death?

—Emery Pottle in "Success Magazine."

Acute Parenchymatous Nephritis

By HENEAGE GIBBES, M. D., C. M., L. R. C. P. (Lond.),
McAlester, Oklahoma

EDITORIAL NOTE.—This paper is the second of a series of three upon the subject of nephritis. The first paper appeared in the September number of CLINICAL MEDICINE. *These article will richly reward careful study.*

IN my preceding paper, entitled "Scarlatinal Nephritis," published in THE AMERICAN JOURNAL OF CLINICAL MEDICINE for September, I mentioned the classification I have adopted for diseases of the kidney after long study and examination of numerous cases which have been closely followed during life and morbid changes carefully examined after death, on organs most carefully hardened before sections were made and stained. It is only by observing all these details that a pathologist can speak positively as to the nature of the morbid change before him, always supposing that he has a thorough knowledge of its normal histology. No man has any right to pass an opinion on any morbid lesion who is not a thorough master of normal histology.

Classification

My classification of nephritic disorders adopted is as follows:

1. Scarlatinal nephritis, a simple inflammation, already described in the September number.

2. Acute parenchymatous nephritis, with subdivision of chronic parenchymatous nephritis—the subject of the present paper.

3. Interstitial nephritis, or Bright's disease—the subject of the next, and concluding, paper.

There are, of course, many minor changes which might be and are taken to establish other forms of disease, but I cannot see their utility. The classification I have adopted is simple and appeals to the worker by its simplicity. Each division embraces a distinct lesion. The interference with function is clearly shown in each division; and the interference with function and its consequences is so clearly exhibited by its very simplicity that the general practitioner cannot fail to realize what he is up against in every individual case, excepting of course those complicated cases where a positive diagnosis is almost impossible.

The lay public are keenly alive to disease of the kidneys, and they come with a history of pain in the small of the back which has lasted for some time and is getting worse. These are the cases where the quack gets in his deadly work, and we often meet people who have been paying a dollar a bottle for some advertised rubbish which they acknowledge has done them no good. When I get one of these cases, I give the patient a pill consisting of blue mass, rhubarb, and ipecac, to take at bedtime, this to be followed by a saline laxative on rising next morning. Many cases will be cleared up by this treatment, while all will be benefited.

Structure and Function of the Kidney

Before going further, I will give a slight sketch of the structure and function of the kidney in its normal aspect, which will help to an understanding of the changes produced by disease.

In the first place, it is the function of the kidney to produce the urine, a watery fluid which carries a large amount of effete matter out of the body, and any interference with that function is rapidly shown by some changed condition incompatible with health.

The kidney has two functions, one being to produce the urinary water; the other, the urinary solids, or extractives. The first is formed by the glomerulus, which is the expanded end of a uriniferous, or collecting, tube. One closed end of this tube is expanded into a small sac, or bladder. The renal artery sends a small arteriole to each glomerulus which, when it reaches this expansion of the collecting

tube, breaks up into small tufts of capillary blood-vessels. These are covered by the wall of the expansion, which is composed of flattened cells set edge to edge and cemented together by cement-substance. (This cement-substance is universal throughout the body, cementing cells to one another and to the membrana propria, a basement-membrane on which they rest.)

Now, the arteriole which has broken up into tufts of capillary blood-vessels is the afferent vessel, that is, it brings the blood to the expanded end of the collecting tube and pours the urinary water, which carries some substances that are in solution with it, into it. These capillary blood-vessels are then merged into a vessel which carries away the blood that has given up the urinary water and other matter, and this is the efferent vessel; and this *ef*-ferent vessel is always of smaller size than the *af*-ferent vessel, thus increasing the blood pressure in the glomerular tufts. When this efferent vessel is first formed, it resembles a small arteriole, but it soon breaks up to form with all the other efferent vessels a capillary network which ramifies throughout the convoluted portion of the uriniferous, or collecting, tubes, so that their cells may remove from the blood, by a process of secretion (which in this case becomes an excretion), those substances which are the solids of the urine. From this rough sketch it will be seen how intimately all the different parts are associated and how little the derangement may be that can upset the whole scheme.

A Case in Point

Now to our case in point. We will suppose the patient has taken the pill of blue mass, rhubarb, and ipecac, with perhaps a little nux vomica, and this has been followed by a saline laxative in the morning. He feels better, but the pain in the region of the kidney still persists. We find he has some fever, we notice also that the urine is scanty, high-colored and smoky. We test with sulphosalicylic acid and find albumin. We now have to make our diagnosis, as it evidently is an acute case and the sooner the treatment is begun, the better for a good result. The grafter with one idea will at once say, "Appendicitis" and, if he can persuade the patient and his friends, will operate and perhaps get his fee. A check for $150 in one's pocket will soothe the qualms of an elastic conscience.

We will, however, take another view of the case. Elimination has been perfect, but the pain and tenderness still remain; there is a considerable amount of albumin, the eyelids become puffy, there may be persistent vomiting and dyspnea, the skin becomes dry and harsh, the puffiness of the eyelids is soon followed by dropsy of the lower limbs and scrotum.

With these symptoms well developed, a mistaken diagnosis is hardly possible. If, however, a doubt exists, collect the urine for twenty-four hours, mix well, and send four ounces of it to a clinical laboratory for analysis.

The Beginning Treatment

Having decided then that it is a case of acute parenchymatous nephritis, proceed with the treatment and do not wait for the laboratory report.

Without any further delay, send the patient to bed and keep him there; put him on a strictly milk diet to start with; keep the bowels open with laxative salines, compound jalap powder or else elaterium in 1-6-grain doses repeated to effect. Give him all the water he wants, but allow no tea, coffee or stimulants. Drycup over the kidneys and follow with poultices—one made with jaborandi leaves and hemp seed, equal parts, is most effective. Diaphoresis is indispensable in this condition, while magnesium sulphate in small repeated doses is a valuable cathartic, as it acts on the kidneys as well as the bowels. One of the characteristic features of acute parenchymatous nephritis, and the most common, is exposure to damp cold, as has been well proved by arctic expeditions, where the cold is intense but dry, and this form of kidney disease has seldom been met with. Another feature is that it is a disease of the young—under fifty.

The prognosis is decidedly favorable in mild cases when taken in time and properly treated.

In describing the normal histology of the kidney, I mentioned the convoluted tubes as containing secretory epithelium, that is, epithelium that takes something from the blood and passes it into the lumen of a gland-tube forming the secretion of that gland, whatever that may be. But here the action is different. I have pointed out that the efferent vessel, after it leaves the glomerulus, joins other vessels and, forming a capillary plexus which is in close relation to the cells of the convoluted tubes, these cells remove something from the blood which has already been deprived of the urinary water and pass into this urinary secretion, which consists of the extractives, or solids, of the urine.

In acute parenchymatous nephritis, the convoluted tubes are the parts affected by a peculiar form of inflammation, which causes the cells to swell up, annihilating their function, while at the same time destroying the cement-substance which binds the cells together and to the basement-membrane, in consequence of which desquamation takes place and the cells are thrown off in dumps, and a condition of desquamation is produced. In this way numerous cells are unable to perform their function, and consequently the extractives that should have been carried away with the urine accumulate in the blood.

In dealing with such a condition, always bear this in mind and look out for uremic symptoms, as they may develop at any time in any variety of nephritis. It is a self-evident fact that if the blood that is supplied for nutrition to the nerve-center is not in itself in a normal condition, but is full of extractives which should have been removed, the nerve-centers cannot be expected to perform their functions in a normal manner; and uremia is always more or less connected with the nervous system.

Toxemia must be treated promptly and thoroughly, and when a sudden rise of temperature or increased flow of urine is noticed, the onset of uremia may be suspected; and the more prompt and thorough the measures taken, so much less is there likely to be a severe attack.

Absolute rest in bed at the beginning of an attack of acute parenchymatous nephritis was advised, also a milk diet or animal broth where there is much depression and anemia, the regulation of elimination by frequent small doses of magnesium sulphate or of compound jalap powder, night and morning and with these measures one that is as important as any, or more, that is, keeping up the action of the skin. I have already mentioned a good method of doing this. By attending to all these measures, the toxin which has caused the trouble is gradually removed from the system and the desquamated cells in the convoluted tubes are replaced by new ones, developed by the cells remaining in the convoluted tubules. In this way a mild attack can be cleared up, all parts returning to their normal condition.

This happy condition, however, is not arrived at without great care and attention on the part of the attending physician, and in a great measure it depends upon a correct diagnosis in the early stage. If this is not done and the case is treated in a haphazard manner, it readily passes into the chronic condition and irretrievable mischief is done.

The discussion of this chronic stage will be taken up in my next and concluding paper, together with chronic interstitial nephritis. I will add that, when we find that the blood has disappeared from the urine, a course of iron and ammonium acetate and of glonoin will cause the albumin also to disappear, when we may consider that health is restored.

The Narcotic-Drug Addictions

Pertinent Points in Their Treatment

By C. L. CASE, M. D., Oakland, California

EDITORIAL NOTE.—There are thousands of drug habitués in this country, and the treatment to which they are generally subjected is notoriously unsatisfactory. Real help can be obtained in this article by Dr. Case, who has had extensive experience in cases of this character.

CONTRARY to the consensus of opinion expressed by physicians with whom I have talked on the subject and of most of those whose writings I have read, I do not hesitate to say that narcotic drug addiction is as certainly and readily curable as any of the chronic ailments. Another thing that is contrary to the opinion of the majority of physicians as well as laymen is that most drug users are very desirous of being cured. True, there are some who have no particular aim or ambition in life beyond present desire for comfort and dissipation, but these are almost infinitesimal when compared with the great army of drug users whose paramount hope is, in some way, at some time, to find freedom from their slavery. Dr. William J. Robinson of New York mentions a case in point, in his article entitled "Scientific Medicine vs. Quackery," in CLINICAL MEDICINE for February, 1911, page 159, in which he says: "A young man became, unfortunately, addicted to the use of morphine. He earnestly wanted to break himself of the pernicious habit. He applied to several physicians in succes sion, etc."

Turn to the standard textbooks, and here are a few examples of what we find on the subject:

"Opium habitués, differing as they do among themselves in the manifestations of the drug as long as it is freely taken, all alike develop characteristic symptoms upon its speedy or gradual withdrawal. Precordial distress accompanied by cough is followed by convulsive twitching of the hands. These phenomena are associated with a sense of perfect prostration which obliges the patient to take to his bed. Pain in the back and limbs followed by neuralgias occur. . . . The appearance of the patient is now most pitiable: the countenance is blanched and pinched, the body occasionally drenched with sweat, the heart's action feeble and the pulse thready and irregular. (Pepper's "System of Medicine," Vol. V., pp. 657-8-9.) The apartments occupied by the patient should be so arranged as to guard against attempts at suicide. (Ibid., Vol. V, p. 672.) This method (Levinstein's sudden withdrawal) is attended in all cases by indescribable suffering and by many serious dangers. . . Failure of the circulation may, notwithstanding every effort to control it, reach such a degree as to jeopard the patient's life." (Ibid., Vol. V, pp. 673-5-6.)

"The treatment is manifestly difficult and unpromising. . . . The likelihood of a cure is exceedingly remote." (Anders' "Practice of Medicine," 1900, p. 1216.)

"There is no remedy for the opium habit." (DaCosta: Potter's "Therapeutics," p. 767.)

Quoting again from Dr. Robinson's article: "The morphine habit cannot be treated very successfully outside of special homes or institutions."

Dr. Geo. E. Pettey of Memphis, Tennessee, writes: "I am now able to say without reserve that the morphine habit is the most certainly and readily curable of the chronic ailments."

With the last two authors quoted, I most heartily agree, but I intend and hope to show that there is something better than one would be led to expect from reading the other writers.

Opium has been used for centuries, for the relief of pain and nervousness and to check diarrhea, and the benefits are beyond calculation.

Now, in case a painful ailment requiring the use of opium lasts for weeks or months, the patient is in danger of getting into such a condition that he will require the use of the drug every day.

Opium greatly inhibits the function of all the eliminating organs of the body and this action is most noticeable on the alimentary tract. It retards the action of the bowels by its effect on the nerves that control the peristaltic action of the muscular coat to a much greater extent than by inhibiting the action of the eliminating glands. While the eliminators do not perform their function as well when under the effects of opium as otherwise, they do act at least at a living rate.

Autotoxemia the Main Pathologic Condition

The principal pathologic condition to be dealt with in the treatment of these cases is autotoxemia, the result of toxins being reabsorbed from the intestinal tract. The presence in the system of these toxins is the cause of the dangerous and distressing symptoms which are described by most writers on the subject.

When the drug is discontinued, there is a reaction of the nervous system, which has been under its benumbing influence. This, while very distressing to the patient, is not dangerous to life, and even this condition can be very much mitigated, if not entirely obviated, by treatment according to the general principles of medicine.

The fact that opium is used to check diarrhea, which it does by quieting the peristaltic action of the intestinal tube, gives us a most valuable guide in the treatment.

Opium, for whatever purpose given, will, of course, exert that same action on the nerves controlling the muscular coat of the bowels, and in time the system becomes so surcharged with, not particularly the drug but the products of tissue disintegration which in a normal person are poured into the intestinal tube by the eliminating glands and voided at more or less regular intervals every day; in the drug habitué, however, these waste products are but imperfectly excreted and then largely reabsorbed into the circulation from the alimentary tube.

As of course only the liquid portion of the contents of the bowels can be absorbed, it is plain that, with the most important factor in the intestinal evacuation, that is, peristalsis, practically suspended, the bowels become loaded and remain loaded with dry, hard scibala.

Now, with this condition of autotoxemia causing the extremely distressing withdrawal symptoms, as described by the majority of writers on the subject, when the patient is deprived of his drug without proper preparation, it appears clear to my mind that at least the routine part of the treatment is plain.

As to the methods I employ, I follow pretty closely those first outlined and introduced to the profession by Dr. Pettey of Memphis, in which the idea is emphasized that the toxic matter retained in the system by the constipating effect of opium is the cause of the suffering which the drug user experiences when deprived of his drug without proper preparation, and therefore the first and most important step in the successful treatment of these cases is thorough clearing of the intestines by means of purgatives while the patient is still under the influence of his accustomed drug. Clean up, clear out, keep clean.

When the intestinal tract has been thoroughly cleansed of all fecal matter, the use of opium is discontinued, and hyoscine is substituted for a day or two, or occasionally a little longer, as the individual case may require. This practically causes sleep or rather a state of unconsciousness, while otherwise the suffering would be most intense.

The Importance of Hyoscine

Hyoscine occupies a place in the treatment of drug addiction similar to that of chloroform in surgery, that is, it keeps the patient in an unconscious condition, while suffering would be intense without it. Hyoscine, when properly used, is practically without danger and its effects are not nearly so unpleasant to the patient as chloroform or ether.

The length of time required varies greatly with different individuals; some will gain more in a week than others will in a month. I have had some patients, who had good home surroundings and had used the drug for a short time only, who were ready to go at the end of ten days or two weeks; still,

in the great majority of cases it is best for them to stay for a longer time than that—from three to six weeks; for while medicine is seldom required after the first week, patients are not usually in good enough condition to be put on their own resources that early, but should stay where they can have physical training, hot baths, massage, and whatever may be required for the individual case.

It is my firm belief that the great majority of drug users can, under this plan of treatment and management, be permanently cured.

An Illustration From Practice

The following case will serve to illustrate the principles contended for in this paper:

Patient came to me Tuesday morning with the following history: Began the use of opium four years ago for relief during a severe attack of rheumatism which lasted four months. When this malady terminated, he found that he could not leave off his opiate for more than about sixteen hours, without severe attacks of yawning, sneezing, terrific aching of the bones, back and joints, extreme restlessness, vomiting, purging, irregular heart's action, and apparent danger to result in fatal collapse if he carried his attempt too long.

When he came to me he was using 8 grains of morphine sulphate daily, taken hypodermically in four doses. I gave him the following:

Calomel	grs. 8
Extract of cascara, pulv.	grs. 8
Ipecac	gr. 1
Atropine sulphate	gr. 1-50
Strychnine nitrate	gr. 5-16

To make 5 capsules. Directions: Take one capusle at 2, 4, 6, 8, and 10 p. m.

I allowed the usual doses of morphine while this was being taken.

Wednesday I gave a large dose of epsom salt at 6 a. m. and also gave a hypodermic of 1-16 grain of strychnine nitrate, to enliven the peristaltic action of the bowels. At 7 a. m. I gave a full dose of castor oil. The bowels operated four times between that and noon and he said that they were the most copious actions that he had had for years and that they were free from griping or pain of any kind. He had not really suffered for morphine up to this time, although it was past the time for the second hypodermic of the day; but now, he said, he felt as though a dose of morphine would make him feel better, so, as I was not satisfied that the purgative had done all that was possible for a purgative to do, I gave him 1-2 grain of morphine, which proved to be plenty to keep him in a comfortable condition until bedtime. I repeated the mercurial and vegetable purgatives as I had given them the day before, and administered 1 grain of morphine sulphate at bedtime—this was the last opium of any kind that he has taken.

I administered the epsom salt and strychnine, followed by the castor oil next morning. The patient had several copious discharges from the bowels before noon; the last movement occured at 1 p. m. At 2:30 p. m. he said that he did not feel as though he would ever want another dose of morphine. This absence, or rather postponement, of the abstinence-symptoms is accounted for by the elimination that he had had.

At 3:30 p. m. I decided that elimination was complete; so began the use of hyoscine, of which I gave 1-200 grain every half hour until the third dose was given; ten minutes later he fell asleep and slept five hours. On waking, he said he felt fairly well. At 10 p. m. he was given 1-150 grain hyoscine. He slept until a little after midnight. On waking, he said he was not suffering any real pain, but that he felt somewhat uneasy. His mind was clear. At 12:40 a. m. he was given 1-150 grain hyoscine. Between this time and 7 a. m. he had several short naps, but when awake, he showed slight wandering of the mind, though, when his attention was attracted, he would answer a question intelligently; still, if left to himself, he would talk of imaginary objects and hunt in the bedclothing for things that he thought he had lost. Temperature, slightly above normal; pulse, 62, regular, full and soft. At 7:20 a. m. he was given 1-150 grain hyoscine, and this was repeated at 10 a. m., 12:30, and 2 p. m. At 8 p. m. his mind was much clearer and he then fell asleep and slept

an hour; on waking he said he was not entirely comfortable, so he was given 1-250 grain hyoscine; he was able to lie in bed quietly until midnight, when he fell asleep and slept most of the time until daylight.

On Friday morning at 6:30 he said he was hungry, so a glass of hot malted milk was given him. He was kept on a rather light diet during the day and was allowed to sit up an hour in the forenoon and two hours in the afternoon. At 9 p. m. he was given a hot bath, followed by massage. He slept, in all, about five hours, but said, Saturday morning, that when awake he could lie still without any nervousness and that he was entirely free from pain. He was kept on a rather restricted diet Saturday, and remained out of bed most of the day. On Sunday morning he insisted on having more substantial food. This was allowed and taken with a relish from this time on.

No medicine of any kind was given after the fourth day and his recovery was steady and uneventful. The kidneys acted normally throughout, because he was allowed all the water he wanted to drink.

There was practically an entire absence of the characteristic withdrawal symptoms that are met with when trying to treat a patient by the older methods as recommended in textbooks.

The man says he has had no desire for morphine since the first dose of hyoscine and really never thinks of it unless some one mentions it to him. His skin, which had that swarthy, yellow appearance at the beginning of treatment, became clear. He slept almost normally during treatment and has continued to do so.

During the first five days of treatment, he lost 14 pounds, but had regained it at the end of twelve days, which brought his weight at that time to 136 pounds. At the present time his weight is 158 pounds, four months from the beginning of treatment—a gain of 36 pounds in a little over sixteen weeks. He now declares he is in perfect health. His memory and reasoning power are as good as before the formation of the habit, all his functions are performed naturally, and he feels that life is really worth living now. The loss of weight observed was the result of the elimination of toxic matter by the purgatives, and the rapid gain in weight was the result of the fluids, which had been carried off by the salines, being replaced in the system by water, which the patient was encouraged to drink.

I am aware that it is hard for those who have tried to cure patients by the methods advanced in the standard textbooks to realize that such results as here recorded can be accomplished in so short a time as two or three weeks, but this is a fair average of over three hundred cases that I have treated by this method in the past seven years, and I feel that too much credit cannot be given to its originator for his diligent study and philosophic writings

The Treatment of Cholera

A Review of Past and Present Methods

By WILLIAM F. WAUGH, A. M., M. D., Chicago, Illinois

Senior Dean and Professor of Therapeutics, Bennett Medical College, Chicago, Illinois

II

DON JAIME GARAU, Director of the Military Hospital at Palma, Majorca, thus analyzed the dosimetric treatment:

Calcium sulphide neutralizes the destructive action of the parasite upon the blood and renders less harmful its action upon the nerves and the intestinal apparatus, tonifies the innervation and renders it refractory to the poison. The lime is especially useful to conserve cardiac contractility. This, with the antiparasitic property, gives it the first place. Even more, it eliminates the parasite and acts on the hepatic and pulmonary circulation.

Leptandrin, tonic intestinal eupeptic, combats gastric embarrassment, and acti-

vates the digestion and biliary secretion, as do other chologogs.

Strychnine and brucine act on the inert fibers as excitomotors of voluntary and involuntary muscle.

Ether and monobromated camphor subdue cramps, the latter being also antiparasitic.

Croton chloral is better than chloroform, as the former does not weaken the heart.

Saline laxative expels the toxins and gives to the blood the needed salts.

Leptandrin, iridin and hydrastin are cholagogs, tonics and diuretics.

Ice and effervescing fluids repress vomiting and restore fluidity to the flood.

Tannic acid, codeine and bismuth moderate diarrhea, with opium if needed.

Monobromated camphor, croton chloral, morphine and ether hypodermics, with stimulating liniments, relieve cramps and cause intense revulsion.

Hot sage and balm teas, alone or with rum, brandy, gin or ether, are diffusible stimulants.

Brucine, phosphoric acid, cocaine, strychnine and picrotoxin favor vasomotor activity and arouse reaction.

Glonoin combats collapse with great energy.

Professor Gaetano Tordone (1884) presented as his solution of the cholera problem the use of sulphureted hydrogen. This is best accomplished by the administration of calcium sulphide.

Jules Guérin insisted on the treatment by astringents. Pidoux gave ipecac in forty-four cases, losing forty-three.

Castro, the great Portuguese dosimetrist, bases his treatment upon two indications—to kill the microbes or oppose their development, and to incite the nervous vitality in order to combat the primordial functional disorder, paralysis of the intestinal nerves.

Castro Used Calcium Sulphide

To fulfil the first we have calcium sulphide, which can kill the microbes without injury to the patient. For the second indication he has recourse to strychnine and phosphoric acid, the most energetic remedies for the paralysis.

Professor Laura of Turin says that since the feature universally recognized as peculiar to cholera is adynamia, the dominating therapeutic rule is to seek to arouse the vital energy and maintain the activity of the gastrointestinal functions, rejecting all depressants even if they seem indicated at the moment. He urged an early attack on the preliminary diarrhea with morphine, codeine, quassin, caffeine and especially strychnine, also albuminous enemas with laudanum.

He says: "Why the term 'premonitory,' if justly given to this early diarrhea, if it is not in effect a precious warning to fortify the organism in view of the struggle that is coming? In leaving this diarrhea to prolong itself, is it not an open wound one leaves in the interior, and a way open to that horrible decomposition that terminates by the asphyxial period and death?"

Yet the partisans of the diarrhea see in it a favorable crisis of nature seeking to rid herself of the choleraic poison. Laura saw and denounced this fatal error, as did the physicians in India, who gave full trial to the castor-oil treatment and found it murderous.

Ballesteros of Seville relied upon calcium sulphide as the dominant, giving a centigram every ten or fifteen minutes, with Gregory's salt to moderate the diarrhea, strychnine as a vital incitant, and counter-irritants over the spine and to the extremities. He also gave the sulphide as a preventive, with great success.

Tunise relied on laudanum, which he pronounced a specific; yet his mortality reached 81.5 percent.

Advice of the Conseil d'Hygiene

The *Conseil d'Hygiène* of Paris adopted this routine in the epidemic of 1892: Three indications—rewarm the patient, combat the diarrhea, arrest the vomiting. For the first, hot drinks and stimulants—alcohol, tea, rum, mild coffee, rubbing, hot-water-bottles. To arrest the diarrhea, lactic acid, which has done well against the green diarrhea of infants, choleriform diarrheas, and *perhaps* real choleras. This is given in small doses every fifteen minutes. For the vomiting the best antiemetic should be

menthol, since it prevents the vomiting of ipecac; but it is not easy to manage, is insoluble in water, and disagreeable. Ice, aerated drinks, paregoric, and Laussedat's drops (consisting of a mixture of ethereal tincture of valerian, Hoffman's anodyne, mint, and Sydenham's laudanum) are all recommended. Burggraeve saw this last-mentioned remedy applied in five epidemics in Ghent, with disastrous results.

The hot drinks and stimulants increased the epigastric burning. The acid was used by Dujardin-Beaumetz, but he was not sure of its utility. The only opiate found of value by Burggraeve was codeine in milligram granules. He urged vigorous frictions with brush or Bunsen pile; and Father Epstein tells me that he found frictions with aromatic vinegar very valuable when treating true cholera in Russia.

Burggraeve's Simplified Treatment

In 1892 Burggraeve simplified his treatment to this: Place the patient in bed, wrap in a blanket wrung out of boiling water and cover well; when reaction has been established give strychnine, aconitine and digitalin, in view of the diuresis and the typhoid state which generally follows cholera treated by diffusible stimulants, mint, ammonia, etc.

Ferran advised the use of lactic acid, with morphine to prolong its action, and this was seconded by others; but Bucquoy tried it in a case of true cholera and found the diarrhea was increased.

Burggraeve found lactic acid less effective than calcium sulphide, which, disengaging sulphydric acid in the intestines, affords the acid protection insisted upon by Koch.

Hayem treated 251 cases at the Hospital St.-Antoine, with 102 deaths, or 40.6 percent—a fair result. He washed out the stomach with water boiled or borated, and lactic-acid lemonade; for collapse and algidity he used baths at 46° C., and serum injections. Siredey, at the Hotel Dieu, treated 104 cases, and had 49 deaths, or 47.11 percent. He used bismuth subnitrate, paregoric, lactic acid, talc, bismuth salicylate and laudanum. For the vomiting, chloroform water, milk and iced champagne. In all grave cases, injections of ether and caffeine, and inhalations of oxygen. In the algid period, hot baths at 36° to 38° C., followed by warm wraps.

Dujardin-Beaumetz declared his absolute skepticism as regards the treatment of cholera, and his belief that active treatment was injurious. Prophylaxis alone deserved the physician's attention. Goyard attributed this view to the senseless quest for a specific for the disease.

Siredey and Gaillard advocated the use of normal saline solution injected beneath the skin, in quantities. Hayem carried the heat of his baths up to 40° C., finding the patient's temperature raised a degree or more, the pulse restored, the cramps disappear. But Goyard found that his patients died after the baths, in the proportion of 78 percent. Here is a remark of Goyard that may be worth noting: "At each new epidemic of cholera one sees, specialties appear in the form of drops containing mint and anise, and similar substances brought from afar, marvellous, it is said, in the Indies;" but all fail and do harm, by irritating the denuded stomach.

Cholera in India

Professor Leonard Rogers, who as physician to the cholera wards of the Medical College Hospital of Calcutta has had unusual opportunities for personal observations on this malady, and whose book has just been published, states that Haffkine's prophylactic serum has been abandoned almost completely in India, despite its efficacy, owing to the severity of the reaction following its injection.

Cholera is spread through food, water, flies and soiled clothes. Wells may be disinfected with potassium permanganate.

Rogers does not approve of the castor-oil treatment, although a reviewer in the *Lancet* testifies to its efficacy in his own experience. He acknowledges that Macnamara disapproved of it and favored opium. During the stage of collapse Rogers administered intravenously enough hypertonic saline solution to restore blood-pressure to normal. By the mouth he gave enough calcium permanganate to destroy the toxins in the gastrointestinal tract by oxidation. He excludes opium

whenever the rice-water stools appear. His mortality was only 23.3 percent.

Goyard speaks favorably of hot tea with rum. Hypodermics of ether offer the means of momentarily arousing vitality, but with following depression. They afford a little respite, if that is of value. Caffeine alone or with ether is of little use. Quinine is better, but in the only doses permissible too weak for the emergency. He arrives by elimination at the neurosthenic *par excellence*, strychnine. He advises half a milligram with a centigram of quinine, by the mouth, every quarter hour if the stomach is not much disturbed; if it is, he gives four times this dose hypodermatically hourly. After reaction is established the defervescent alkaloids are required.

The Acid Treatment of Cholera

The treatment by acids was the novelty of the epidemic of 1892. Especially was lactic acid favored on account of its control over green diarrheas. Whether it acted as an acid or as an antiseptic was uncertain; the trouble was that it did not act at all, so far as curing was concerned. The result as seen by Goyard was to reduce the profession to complete therapeutic skepticism. Peter found that in doses up to six Grams daily lactic acid produced no effect; beyond this dose and up to ten Grams, those who tried it discourage its use. Peter prefers opium. Hayem himself restricts it to cases without algidity—that is, to mild ones.

Netter gave effervescent acid lemonade, and in algid cases injected hot water into the veins. Piorry gave quantities of sulphuric-acid lemonade, without curing much better than his colleagues. The acid treatment proved a palliative rather than a cure. It did better when the acid was very dilute, and then it calmed the raging thirst. Some recovered who threw off restraint and drank till full. The surgeons made an artificial opening into the small intestine and antiseptics were employed to flush the bowel through this—the mortality was 100 percent.

Burggraeve's Method of Treatment

In 1893 Burggraeve thus described his own method of treating cholera:

1. Every morning a dose of saline laxative in a half cup of water, followed by a few swallows of pure water. Delicate persons might take the salt in tea or coffee.
2. In the morning two centigrams of monobromated camphor in a little wine or liqueur.
3. At the midday meal, quassin and sodium arsenate, three granules each, before or after eating.
4. During the afternoon, two centigrams of monobromated camphor in a cup of claret.
5. At the evening meal, three granules each of quassin and sodium arsenate.
6. On retiring, three granules each of strychnine arsenate, digitalin and aconitine, together.
7. Morning and evening a sponge-bath, with Raspail's lotion (camphorated) diluted with water.
8. Avoid fear when cholera is about.

The treatment of confirmed cholera should be rapid and complete.

1. Envelope the nude patient in blankets well wrung out of strong brine.
2. Expose before a large open window.
3. Guytonian Fumigations, and a wood fire in the room.
4. Electric frictions with a Bunsen pile, through the covers, one electrode shifted along the spine, until the nervous circulation is reestablished. This may be replaced by rubbing with turpentine or camphor oil. Thirst may be relieved by morsels of ice.
5. After reaction, when heat has returned to the periphery, take the patient from the covers, put on dry, warm linen, place in a bed warmly but lightly covered, and give a little wine or punch, hot, each time with a granule of strychnine and one of monobromated camphor.

The cholera access past, the arsenates of strychnine and quinine, six or eight granules each daily, two at each dose, for eight days, until danger of relapse is past. Nourishment fortifying but not in excess. Good air, moderate exercise.

In 1895 Florence, of Perpignan, presented the *Société de Thèrapeutique* a memoir upon his method of treating cholera, which they honored with a first prize. He treated the

symptoms presenting, rather than the malady, as follows: Strychnine arsenate as a vital incitant and restorer, substituting brucine in the weak and delicate. Aconitine when its sedative and moderating influence was required, and as an excitant, vascular, cardiac, pulmonary and cerebrospinal, with strychnine and hyoscyamine. Hydrobromides of morphine, cicutine and cocaine as calmants, antispasmodics and sedatives of the intestines, the cephalorachidian centers and the great sympathetic respectively. Digitalin to contrastimulate the myocardium, regulate and strengthen cardiac rhythm, lessening renal stasis and establishing diuresis. Pilocarpine to establish and augment cardiac action, increase body heat, free the pulmonary cellules, restore respiratory secretions, and stop the terrible dyspnea. In some cases opium with ergotin, for hemorrhagic complications. Monobromated camphor for obstinate headache, a centigram every half hour for six doses, with cold compresses to the head after three days. Chloroform, to favor solution of granules for hypodermatic use and to arouse the sensibility of tissues with which it comes in contact.

These remedies he gave hypodermatically over the stomach, as the sheet-anchor of safety. He also used copious very hot enemas of aromatic waters with coffee or rum, often a few drops of laudanum for great pains; and a morning dose of saline laxative.

Very great care is essential in giving food. When the patient can absorb it he is given chicken or mutton broths, diluted at first.

Galopin says that none of the microbic enemies of man can resist the action of calcium sulphide and iodoform, especially if aided by phosphoric acid and salt. In epidemics of cholera he advises these in massive doses, while not neglecting the serum injections, by which Haffkine reduced the incidence to about one-eighteenth of that of the unprotected.

Several facts stand out in the study of this malady in modern times.

1. Despite the similarity of the symptom-complex with that of cholera morbus, the attempt to transfer the treatment efficacious in the latter has absolutely and completely failed.

2. Common sense and the universal experience of the profession point to the absurdity of locking up the cause of such a disease and its products in the bowels, and the necessity of flushing the alimentary canal. But common sense and experience certainly are mistaken here. The elimination treatment in every form has proved deadly. One man gave ipecac in 44 cases, with 43 deaths, one patient, an old woman over 80, escaping. Castor oil was tried out in India, where a few lives count for little, and proved so murderous that the rule was there formulated that the slightest sign of the disease, during its prevalence, even an easier passage than usual, must be met by confinement in bed and instant locking up of the bowels until the danger is past.

3. The acid treatment, effective in the test tube, failed completely in the sick-room. Lactic acid proved no exception. As a prophylactic, all acids are of great value.

4. The gastric-irritant method, by "insulting the stomach" with pepper and other volatile oils, ether, etc., succeeded in some cases in arousing reaction, but the patients died later of the following gastro-enteritis, or cholera typhoid.

5. Opium has held its own, but is not good enough if we have better, and we have.

6. Harkin's method succeeded: atropine hypodermically, to allay pneumogastric irritation and to stimulate the paralyzed great sympathetic - dosage to flush the face and break up the collapse.

7. The subcutaneous injection of saline solution should be kept up continuously as long as thirst shows the need for water.

8. External heat in all forms, also hot enemas, are decidedly valuable during the algid stage.

9. Naturally we feel like advising intestinal antiseptics and may fall into the same error as the rest; but Rogers' calcium permanganate is an "oxidizing agent," and what is that but an antiseptic? Calcium sulphide is certainly worth a trial at least.

Cancer, and Its Cure

By ALBERT A. DAVIS, M. D., Chicago, Illinois

THE date of the formation of my theory of the cause or origin of a neoplasm was about the time I studied pathology. I could never harmonize any of the theories advanced—as far as I have become acquainted with them—with the characteristics of neoplasms on section; particularly those of a malignant nature. In other words, I accepted the various theories as "good dope for examinations," but discarded them as not helpful in any other way.

Late in my senior year, one of my professors turned over to me a case of inoperable uterine carcinoma to care for and to study. Born a slave and of large frame, the woman showed remarkable resistance to sepsis from the necrosis, and the growth reached a frightful extent, perceptible to palpation, before death ensued.

Since November 8, 1910, I have found thirteen unsuspected uterine carcinomas (diagnosis of a fourteenth has been questioned), all of which I have succeeded in transferring to someone else's care, except one, the wife of an old friend who begged me to make it "easy to the finish." I accepted the task—didn't think it would last a month. But she developed a wonderful confidence in me, which stirred me to attack the problem of cancer with renewed vigor.

Neoplasms are found at two periods of life—at the beginning and at the ending of *sexual life*. The exceptions to this may be traced, usually, to lesions and resulting scars received in those periods,[1] and the others may be attributed to lesions undiscovered. This relationship between neoplasms and sex-periods has been generally noted.

If *irritation*, as commonly assumed, were the cause of cancer, then every laborer would have his hands full of such growths. You and I know men whose hands are scarred over and over doing heavy labor—how many cancers have you seen?

But if we couple these two, sex-periods and irritation, to the *scar-tissues*, then view the changes going on in the whole body at these periods, and I believe we have a beginning, but we must pick up another thread.

Puberty is signaled by well-known changes in the body and the faculties. To me these appeal as only corresponding results of changes in the central nervous system—changes not yet noted by histologists, but which must be there, else, why these changes? *Evolution!* The changes at the close of sexual life, particularly in the nervous and mental manifestations. *Involution!*[2]

As we know, we have irritation-impulses storming a spinal cord during the changes in evolution and in involution—why, then, is it impossible to establish a "pathway of least resistance" between the afferent sensory nerve *and the trophic center governing the growth of cells at the point of irritation?*

If such a reflex be established, what would be the logical result? Malformed cells, with multiple nuclei also showing malformity, piled up in a mass without an organized circulatory or nerve supply, the fate of which is unavoidable gangrene. That is all that I can see in a cancer.

Variation in cell formation, such as the small round cell to the large spindle cell, in this light, are now easily explained—intensity of irritation and completeness of this vicious reflex-arc. The greater the irritation conveyed to the trophic nerve, the smaller the cell and the greater the rapidity of growth and malignancy.

A moment's consideration, it seems to me, would convince any physician that cell growth in the human body must be under the influence of a trophic nerve, or why the atrophy in flaccid paralysis? Why not hypertrophy? I do not believe any cell in the body can multiply itself under the independent control or volition of its

[1] An endometritis or cervicitis at puberty, resulting in degeneration of tissue and replacement-hyperplasia, is the pathologic counterpart of a scar from laceration.

[2] Evolution teaches that in the unicellular organism the impulse of irritation is carried to the nucleus over a pathway of "least resistance," and as the upward steps were taken, nature provided a cell specially adapted for the transmission of these impulses.

nucleus; nor do I believe that the combined effort of a trophic nerve and a cell under any condition can beget a cell which alone can multiply itself. Cancer "grows" at the periphery; it dies when beyond the reach of nutrition.

I realize that if you accept this theory as more within the bounds of reason than the prevalent cell-rest, irritation of scar-tissue, and the infection theories, you must also evolve a new explanation for the phenomenon called "metastasis." If a cancer-cell acts under the influence of a trophic nerve alone, how can it establish itself elsewhere?

If metastasis depended on transfer of the cell from a cancer to another portion of the body, why would not the lungs be the point of most frequent attack of metastatic growth, then the brain next? But is it so? Do these organs not have the greater quantity of circulation? Are their capillaries not as fine as any? Yet, as a clinical fact, do we not find metastasis occurring in the liver more often than anywhere else? Does that not in itself contradict the present theory of metastasis?

Here is the theory I have evolved, and I believe it is in harmony with the foregoing as well as with reason.[3]

The establishment of one "vicious reflex" predisposes to the establishment of others is as reasonable a basis as any other, especially as it is known to occur in other conditions.

Metastasis, if I am correctly informed, is looked for by the clinician first in the liver—why?

[3] I have heard that the late Nicholas Senn injected into his own body fluid from macerated cancer-tissue and known to contain cancer-cells, but no cancer resulted up to the time of his death. Had this been a fluid containing a known infection of cells capable of their own reproduction, what would have been the inevitable result?

The liver is the most complex, a most highly specialized viscus. Its trophic nerves are in a constant state of comparative hypertension; they are more sensitive to other influences.

The constant bombardment of toxic products received in the blood stream is made manifest to the spinal cord. So, then, if a melanotic cancer is established in the retina of the eye, why should it be impossible for the trophic center to reply to the constant specific toxin of melanotic carcinoma by establishing another cancer focus of the same kind at any point? We receive a specific, positive reply to any active drug, infection, irritation, action or inaction (hypertrophy or atrophy) from a trophic center. Why, then, should it be doubted that the constant presence in the same of a specific toxin should bring its reply from a trophic center? And we call it metastasis.

Most assuredly, I realize that this is rank "heresy" (maybe even "idiocy"), but to me it appears to be in harmony with known facts and does not require such a strength of the imagination as the embryonic cell-rest theory. Simple irritation will establish only an orderly hypertrophy. However, just supposing I were a trophic nerve connected up with a sensory nerve bathed in the fluids I have found in presumably clean vaginal canals, and were fed on blood replete with toxins from constipation (which has accompanied every case of cancer I ever investigated), I should go crazy and surely do something vicious to the fellow of whom I were a part. One insult deserves another—*n'est ce pas*?

Turning Points in Life

As Seen by an Old Physician

By C. E. WITHAM, M. D., Lawrence, Kansas

WE all have them—turning points in our lives—but it is not often that they are recognized and appreciated at the immediate time of occurrence; long years in our lives may elapse before reflection fixes their significance and true character. At present it is my purpose to speak of three such critical points in my own life which were not of this occult character, for to me they had a present lucid significance.

But, what is life? Whence? How? Whither? Is all life a spark from the Divine Soul of the Universe? Mortal life is evanescent, as well set forth in the following concise lines, as translated by Professor W. H. Carruth:

> The Past is not, but Memory
> With vivid brush recalls it;
> The Future is not, but fond Hope
> With eager breath forestalls it.
> The Present, only, is—a flash,
> It passes ere the thunder's crash.
> Such, then, is life and all that's in it:
> A hope, a memory, and a minute.

Yet, life has its turning periods—as the lofty mountain range has its salient peaks kissed by the radiant flash of the morning sun.

A Bit of Autobiography

In 1850 I was a young man without means and with dependent relatives. My father had died and left me, at the early age of ten, the eldest of eight children. Yes, my dear father died in his first illness, but not of his own volition nor wholly from disease: his demise was aided by two "expert" (popular and fashionable) doctors of that sorry day. Their excuse for bleeding and saturating him with mercury was that he had typhoid fever! As I grew older and was forced to act the part of a man before I was sixteen years of age, and was deprived of educational privileges, the enormity of the medical ignorance and practice of that day began to dawn upon my mind; and it is now my opinion that up to about seventy-five years ago medicine had averaged no good to the world. And we shall never agree as to the time when it first did average good.

At the age of twenty I had no fixed plan of life. At this time I was the victim of a severe attack of Asiatic cholera. I had been nursing a friend who had the disease, and one day while walking in the yard at my home I was prostrated by a sudden and overpowering attack and dropped to the ground as though I had been shot! I passed through the different stages of the disease and was astonished at my indifference as to recovery. Later, however, after having nursed and practised through several epidemics, I learned that this indifference to life pertains to the disease in a remarkable degree.

When I had passed the critical stage and it was thought that I would recover, I made up my mind, from altruistic motives, that I would qualify myself to practise medicine. Fortune favored me, and I have now followed the profession for more than fifty years—including about three years of active military service during the rebellion.

My father's tragic death—probably his scientific murder—was the first emphatic turning point in my life. He was a machinist, and had he lived I should from choice have been trained in his occupation. And it is plain to me that my experience with Asiatic cholera was a turning point in my life—and one which has affected thousands whose lives have rested balanced in my hands.

And now for the vital turning point—I was abruptly turned by it, as the sequel will show. But let me premise.

There is one spot on this green earth which I shall ever remember and reverence. Kind reader, let me tell you why. I have gazed on Niagara and listened to its liquid thunder; I have explored the canyons of the Rockies and looked out afar from mountain peaks; I gazed down the almost perpendicular depths and, in places, over-

hanging walls of the Yosemite for nearly a mile to its floor, and have also stood at the foot of, and been bathed in, the spray of its grand waterfalls—a fall of water, in height sixteen times exceeding that of Niagara. And another ample river with a first jump of six hundred feet, and at its base encircled and festooned by climbing and dancing rainbows. But none of these nature-glories awakens in my mind the reverential thoughts as does the memory of one particular spot on earth—that one spot! Well, what, and why? Kind reader, go with me.

From the Little Miami River, at one certain point up to the level of the surrounding country it is about one-third of a mile. The ascending and winding roadway passes up through a deep and narrow ravine. Promontories of tree-clad hills jut out here and there, narrowing the road in places, so that but one vehicle at a time could pass. The roadbed of sand and gravel is as smooth as a floor. On the west side rushes a stream of water, deep down below the surface of the way. Fifty years ago, its banks in places were absolutely perpendicular from the edge of the road. Now, to add to the charms of this spot, on the west side is a large ever-flowing spring of clear, pure water which is well patronized by passers-by. In the hot days of summer one could not wish for a more charming and restful spot—watered, cool, shaded by over arching trees. Such was my fairy dell fifty years ago. How denuded now I know not. But I have one emphatic reason for cherishing a vivid memory of this, to me, enchanted spot.

The Story of the Spring

At one time, in 1850, during an epidemic of Asiatic cholera, this spring gained great notoriety. It was in this way: My brother lay in the last stage of that dread disease which within three weeks carried off a full tenth of the entire population of the nearby town of Maineville. When given up to die, my brother said that if he only could be supplied with water from this spring he would recover. His dying request was complied with. He kept his word and recovered.

This occurrence caused to be established a constant supply, nearly two miles distant, of fresh water from this fountain of life; and always thereafter the first ride of the convalescents was to this magical spring. It was a strange infatuation, as the water was not medicinal, but it shows what a notion may do. I myself was one of the victims of the delusion and imbibed of the water. Well, this is the spot. But why so burned into my memory? Listen to my experience.

One dark night in winter, fifty years ago, I was called professionally and had been detained until the gray dawn of the morning. On my way home I had to pass up this wooded ravine, fatigued, sleepy, and cold. I drove a very gentle and trusty pony to a cart. There was no travel at that early hour and I knew that my horse would keep the center of the smooth road and take me safely home, and a few minutes' sleep would do me so much good. So I could not resist the temptation, threw the lines over my head and quickly fell asleep.

It was but a few minutes, when I felt the firm pressure of a hand grasping and rocking my right shoulder, while into my ear was distinctly whispered, "Old fellow, you had better wake up." Dazed and half awake, I realized that the danger was on the right hand. So I pulled the left line and then looked down. There, to my amazement, the right wheel of my sulky was tracking within an inch of the edge of the perpendicular bank down to the swollen stream. I then cast a look back for the friend who had so kindly admonished me. If there, he was not visible. I looked again, to discover why my sure-footed, gentle and kind pony had left the center of the narrow road and was about to land me down there in the cold, foaming flood. I then saw the cause of his meandering. He was a dainty fellow, and, to avoid getting his feet soiled, had turned out from a puddle of muddy water in a low spot in the center of the road! He was thinking more of his own clean feet just at that time than of his master. I forgave him, but it cured me of the habit of sleeping while riding—no more emphatic admonition was ever required.

Now, this is no Arabian Nights story, and while I hold up my right hand for the truth of it, I marvel as to its explanation. Some may call it dreaming, some may call it Divine interposition. But, say, reflecting reader, could it have been both? And now, at times, in sleepless hours of night, I fancy that I hear that voice and feel that hand. How strange! I was not an old fellow fifty years ago. Was the admonition so put to make it emphatic? It rather had that effect. Other scenes and experiences may fade, but why should I forget such a deliverance, and why ignore the lure of this spot? It is due the genii to say that I was duly grateful for not getting my clothes wet and my neck broken. And this is my most sacred earthly spot!

There are no exaggerations in these statements, and I venture no explanatory assertions, but in reflective moments the query will come up, Can anything happen without cause? Say, then, what altruistic monitor so rocked my shoulder and addressed me, "Old fellow you had better wake up," fifty years ago?

If we would but recognize them, there are sacred spots as well as turning points in life. For me, my first was the locality where I was introduced to the light of this mysterious world—with forceps on my head on the 21st day of October, at 4 o'clock in the morning, anno Domini 1830.

I call to mind that this world seemed, at that period, prosy, and was run by horse and manual power. But the world of today is run by electricity—not always requiring wire nerves! Science says to the prosy individual, "Old fellow, you had better wake up." And it says to the old-style prescriber of drugs, "Old fellow, you had better wake up"—and says it as emphatically as I was admonished to waken up. Then let us rather be alert and optimistic to appreciate the hints of science and of nature and be alive to opportunity. Let us not be unduly bound by adverse environment.

I ONCE knew a man who felt it so necessary to make a living that he lost his life. He lost it a piece at a time, but he lost it totally just the same. He spent his evenings and his Sundays, as well as the daylight hours of the week, in his office. He made some money, but the more he made, the more it made a slave of him. His wife and children had to find their best society somewhere else. He came to be regarded, not as the head of the family, but as a piece of old office furniture. He thought his family and his business would go to wreck if he left for a few days. One day he left for good. There was a crape on the office door for three days. Then they opened up, moved out his old desk, cleaned and refurnished the room, and the business went on as well as before, and the family did about as well as usual. The world also went on without a bump or joggle.

—The Northwestern Lancet.

On the Reserve*

By E. S. GOODHUE, M. D., Kailua, Hawaii

1

I really don't see why you fret,
Because you do not always get
What you deserve;
If we had all that we liked best,
What would there be for all the rest
On the reserve?

2

There's not enough to go quite round,
More men than rations will be found
About the platter;
Some will have more, and some have less;
Things don't come even, I confess,
In every matter!

3

So take your part—if 't isn't half—
And don't go bawling like a calf
That's lost its mother;
Accept your portion like a man,
Be even grateful, if you can,
My worthy brother!

4

It often happens that the one
Whose lot seems hardest has most fun
Out of his living;
And often those who have the least
Find their enjoyment is increased
By joyful giving!

5

There is a priceless gem, my lad,
Which kings and princes wish they had,
But cannot buy:
That sweet contentedness of mind
Which simple hearts can always find
If they but try.

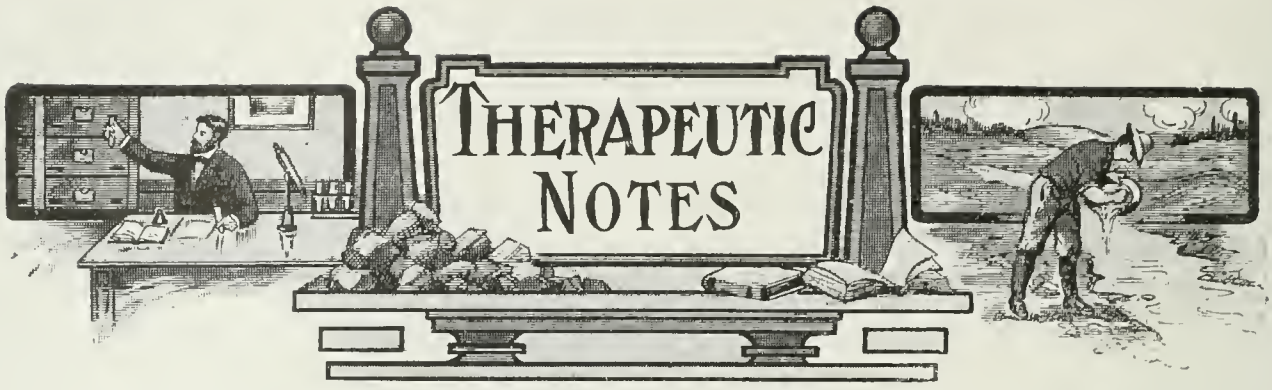
6

So 't is not what you have, my boy,
That gives you peace and love and joy—
It's what you *are;*
What seems rich treasure may yet be
Illusion, like the light you see
Flashed from some star!

7

Nothing is ever quite so bad,
Nothing so gloomy or so sad
As it may seem;
Out of the direst, darkest woe
The blessed buds of Hope will grow,
And brightness gleam!

*Written for The American Journal of Clinical Medicine.



CALOMEL AS A DIURETIC

F. Von Szontagh (abstract in *Therap. Monatsh.*, Aug., 1911) discusses the effectiveness of calomel as a diuretic, the remedy being especially indicated for this purpose in cardiac dropsy, while it is contraindicated in hydrops due to renal disease.

IODINE FOR WOUNDS

Dr. Ira W. Ballard of Opelika, Alabama, says that for a couple of years he has employed tincture of iodine as an application to wounds. In place of the caustic acids, antiseptic solutions and powders formerly used in the treatment of open ulcers, and particularly chancroid, he now applies tincture of iodine on a cotton swab each day. He dries this and covers with a cotton dressing. He confidently expects improvement at each visit of the patient, after such treatment.

THERAPEUTICS OF CALCIUM PERMANGANATE

G. Arbour Stephens (abstract in *The Prescriber*, Jan., 1911) has tried calcium permanganate, with good results, on patients suffering from gastric inflammation (gastric catarrh, gastritis or gastric ulcer). He gives 1-4 grain three times a day. The drug is of service in enteritis and colitis, and also in workers among lead in whom "lead lines" on the gums are well marked. It is suggested that in this latter condition the cure is brought about by the permanganate of calcium curing or preventing gastritis. Tried empirically, the drug has been employed with benefit in malaria. The best form of administering the drug is by means of capsules, otherwise the unpleasantness of the taste is liable to terminate the treatment in a somewhat abrupt manner. It is also recommended for local applications in such conditions as rodent ulcer, inoperable cancer, etc.

POTASSIUM BICHROMATE IN PHTHISIS

James B. Tombleson gives in *The Lancet* for Nov. 19, 1910 an interesting account of six cases of phthisis which improved markedly under treatment with potassium bichromate. One-quarter of a grain (2 1-2 minims of a 10-percent solution in water) of potassium bichromate is exhibited, alone or in a tonic mixture, in a wine-glassful of water after food twice a day at first, to be increased upon toleration to three times a day. The drug may cause sickness at first.

FOR SURGICAL EMERGENCIES

Iodine solution, of the strength of 1 in 500; zinc sulphocarbolate, 1 in 80; saturated solution of boric acid; and zinc chloride, 1 in 15, are good to keep on the dressing table and to carry in the emergency satchel, according to *The Medical World*, December, 1910. They may be used for cleansing wounds, as also for a variety of purposes that will readily suggest themselves to those doing much emergency surgery.

VOMITING OF PREGNANCY

Dr. F. A. Remley, Alvin, Texas, suggests the cauterization of the os uteri as a sure cure for the vomiting of pregnancy. The cervix is exposed with the speculum and a saturated solution of nitrate of silver is applied to the congested external os. As the doctor suggests, it will turn the red os

white; but the nausea spells are gone, and for good. "It has never failed me." Physicians trying this method are requested to report their experiences.

VALUE OF THE CALCIUM SALTS. YOUR OPINION WANTED

Some two or three years ago an article appeared in the London *Lancet*, written by Luff, who asserted that many obscure conditions, such as the tendency to hemorrhage, and the ailments due to the socalled "serous" hemorrhages, such as urticaria, chilblains, morning headache, puffiness of the extremities, pruritus, etc., are traceable to a deficiency of the lime salts in the body. Luff's opinion was supported by the experience of Wright, Ross and others, all of whom advocated the administration of large doses of calcium lactate or chloride in these conditions.

We cannot recall that any reader of CLINICAL MEDICINE has reported his experience with these salts in the diseases mentioned above. We shall be exceedingly glad to receive reports from as many of our readers as possible upon this matter. Even a postcard comment will be acceptable.

ACTION OF DIGITALIS

According to *The Medical Standard* (April, 1911, p. 148), Von Leyden, in *Therapie der Gegenwart*, deprecates the tendency to prescribe digitalis as soon as symptoms of cardiac incompetence occur. He says that tolerance soon follows the use of digitalis, and when more serious symptoms of cardiac failure develop, no results are obtained from its administration. Measures tending to secure both physical and mental rest for the patient should be employed before the use of digitalis.

Von Leyden is of the opinion that digitalis has a greater action upon the left side of the heart, and so may fail to benefit those patients suffering more from a failure of the right heart. In fact, he believes that digitalis may even be harmful in these cases. He also thinks that, due to the action of digitalis principally upon the cardiac muscle, there will be little or no effect in advanced myocarditis or when valvular disease is associated with myocarditis.

Von Leyden has not seen much benefit derived from the use of digitalis in fever; in fact, large doses seem to be actually harmful. He prefers the infusion of digitalis, and gives it in smaller doses than those usually prescribed, and discontinues it when its therapeutic effects have been obtained. He believes that digitalis in pill form is untrustworthy and that the tincture is uncertain. Digitalis leaves vary in strength according to where grown and the time of gathering. Age also diminishes their strength.

A PRESCRIPTION FOR INDIGESTION

Dr. J. W. McCall, of Huntingdon, Tennessee, writes us that the most helpful prescription which he has ever found for the treatment of stomach troubles of various kinds is as follows:

Bismuth subnitrate	ozs. 4
Milk-sugar	ozs. 2
Sodium bicarbonate	drs. 3
Ext. nux vomica	grs. 96
Calcined magnesia	grs. 96
Sodium phosphate	drs. 2

Mix. Dose 5 to 8 grains placed on the tongue dry and swallowed with a little water just before meals.

The doctor says he has used this preparation for various forms of indigestion for a number of years with very happy results. In a few cases where it fails to give relief, a few drops of diluted hydrochloric acid will help.

Dr. McCall has been doing a country practice since 1857, filling his own prescriptions during that time.

HYOSCYAMINE IN TETANUS

Dr. George Roberts writes, in the August number of *The Medical Council*, that hyoscyamine given in dosage of 1-250 grain will control the spasm of tetanus. He directs that, when the jaws are set and the patient cannot swallow, the granule

should be placed on the inside of the lower lip. It will be absorbed at once, acting as quickly as a hypodermic injection. In one case where the jaws were set and the spasms came every three minutes, the first granule stopped the convulsions and the jaws relaxed the next day. In another case where there was a wound on the arm, this being the site of infection, a granule of hyoscyamine was given every fifteen minutes until the pupils dilated and the action was maintained by giving the remedy at longer intervals. Dr. Roberts has found hot epsom-salt solution the best application to the wound. This relieves the pain at once.

INHALATION IN PULMONARY TUBERCULOSIS

In *The Lancet* for January 7, Dr. Burney Yeo published an excellent paper upon the treatment of pulmonary tuberculosis by continuous inhalations. He advised an apparatus such as has been used and described by Dr. Beverly Robinson of New York, also by Dr. Abraham Jacobi, and by other physicians. In *The Lancet* for January 28, the following formulæ are suggested for inhalation treatment:

1.—Creosoti.....drs. 2
Ol. pini sylvestri.....drs. 1 1-2
Spirit. chloroformi...drs. 1 1-2
Mentholi.....grs. 10
Ol. cinnamomi.....m. 5

The sponge in the respirator is kept moist with this mixture.

2.—Formalini, 40-percent, m. 30
Chloroformi.....dr. 1
Mentholi.....grs. 15
Ol. pini pumilionis...m. 15
Alcoholis, q. s. ad....oz. 1

Sprinkle 10 drops on the sponge every half hour. The formalin strength is 2 1-2 percent.

The formalin solution, by the way, is made by conveying the formaldehyde gas into alcohol, thus making the preparation more volatile.

After one or two weeks, when the formalin is better tolerated, this may be increased to 5-percent strength, by doubling the amount added. Also, creosote to the extent of 3 to 5 percent may be added to this mixture, if desired.

THE CURE OF SEPSIS

Dr. Charles H. Duncan of New York, in an interesting communication to *The North American Journal of Homeopathy* for July, says that autogenous pus given by the mouth is probably the most ancient medication that the world has known to cure sepsis, for animals have always licked (and cured) their wounds since "the evening and the morning of the sixth day" of creation. (Genesis, I.) These precedents cannot be contradicted. They make it easy for us to believe and understand how cures of sepsis are made by the method the writer is developing. It is distinctly and directly contrary to the present established method of wound treatment.

We have held as the most rigid rule in surgery that a wound should be kept out of the mouth, for fear of the wound being infected. A wound will heal quicker and better when the discharge from it is placed in the mouth. If it is not possible to do this, then it is the physician's duty to assist the patient in getting the discharge from the wound in the mouth if he would cure the patients in the quickest and best manner possible. The pus-producing germs that are in the mouth develop antibodies in the tissues; so we cannot infect a wound by the patient's own mouth. [We wonder what Pasteur, Sir Almroth Wright, and others would say to this appetizing mode of procedure.—Ed.]

BILE IN THERAPEUTICS

Singer of Vienna (noted in *Jour. A. M. A.*, June 3, 1911) reports experimental and clinical investigation which he has instituted, in conjunction with Glaessner, on the laxative action of the biliary acids. They could demonstrate a noteworthy function of the bile in promoting the peristalsis of the colon by injecting bile into the rectum of dogs, afterward verified also in man. These injections gave a prompt and thorough evacuation in from ten minutes to half an hour. Cholic acid was isolated as

the active agent, which was effective in the form of suppositories and enemata. The chief seat of this action is in the colon.

HOW TO GIVE BISMUTH

There is one practical point about the administration of bismuth which is worth bearing in mind. The manner of exhibiting the drug should vary according to the therapeutic result which is aimed at. If the desire be to furnish a sedative to an irritable or catarrhal gastric mucous membrane, the dose should be given when the stomach is empty, and not after a full meal. The necessity for taking bismuth and full meals are quite incompatible conditions. Roentgen rays have shown that the gastro-intestinal mucous membrane gradually becomes coated over by bismuth preparations and they gradually are converted into the black oxide of bismuth.

If, on the other hand, it is the intestinal mucous membrane which requires the sedative or astringent effect of the bismuth, this end will not be attained by giving the drug in a mixture. The bismuth will then obviously spend itself mainly in the stomach. If, however, it is given in capsules or cachets two hours after meals, these will very rapidly escape through the pylorus, when the bismuth will be able to exert its local action on the intestinal mucous membrane, whereas otherwise it would become a therapeutic failure.—*Folia Therapeutica*, 1911, Nos. 2 and 3.

NUCLEIN IN PARALYSIS

O. Fischer reported to the Wissenschaftliche Gesellschaft Deutscher Aerzte in Boehmen, February 3, 1911 (*Wien. Med. Woch.*, 1911, No. 23) upon the possibilities of a therapeutic management of progressive paralysis.

It is known that paralytics improve after septic disease, temporarily (that they experience "remissions" of their disease). Since other febrile diseases do not produce such remissions, Fischer concluded that the curative principle is to be looked for in the increased leukocytosis occurring regularly in septic diseases. Such a leukocytosis he obtained by means of nuclein injections.

His first attempts in this direction were made in 1907-8, when 22 cases were treated, Of these, 2 cases had remissions lasting a few months. In 2 other cases, the remissions lasted, one, nine months, the other, two years, but eventually all patients had relapses. But in a series of untreated cases not any showed remissions. The author found further that the average duration of life of those patients that were treated with nuclein was considerably prolonged as compared with the untreated control cases.

Fischer can now report on further results with nuclein with somewhat more favorable material, that is, in patients of a sanatorium. Among 10 cases, remissions were obtained in 5, and during this time the patients could be considered as completely healthy mentally. Relapses occurred, however, in all of them. He injects nucleinate of sodium in increasing doses of 1-2 to 3 Grams in a 10-percent aqueous solution.

TREATMENT OF WOUNDS

Dr. L. Sexton, in the August number of *The Southern Medical Journal*, says that oil of turpentine and gasolin are effective agents for removing grease and oil that are so often ground into wounds, with more or less dirt, especially in the case of a laboring man. In these cases Dr. Sexton also often finds it of advantage to make a direct application of tincture of iodine, diluted one-half. All splinters or foreign bodies should, of course, be removed. To get rid of particles of dirt, and at the same time arrest the hemorrhage, he finds flushing the wound thoroughly with hydrogen peroxide very effective, this being followed by sterile salt solution. After the application of the iodine, the wound should be well covered with sterilized gauze, and, if the injury is extensive, a padded splint applied. In severe cases, the wound may be thoroughly soaked in 1-2 percent solution of carbolic acid or in a 1 : 5000 mercury bichloride solution.

Application of hydrogen peroxide should not be made to infected wounds where

suppuration or violent inflammation has taken place in the tissue before the surgeon has been consulted. In such cases, the infected hand and arm should be placed entirely at rest, covered with a large moist antiseptic dressing containing at least five yards of gauze roll and a pound of absorbent cotton. This should be kept constantly moist with bichloride solution—in severe cases, a constant antiseptic drip to be maintained for forty-eight to seventy-two hours.

Where lacerated borders are to be drawn together and granulations kept down, nothing goes so nicely as zinc-oxide plaster applied in inch-strips over the lacerated surface.

Much of the pain incident to the removing of dry dressing can be prevented if the first dressing is made with an antiseptic oil or ointment.

NIGHT SWEATS OF PHTHISIS

A. Jacobi (*Medical Review of Reviews*, June, 1911) says that night sweats call for open windows, frequent drying with a towel held in readiness for immediate use, and a vinegar-and-water wash at bedtime as well as later in the night when required. Guaiacol applied with a brush frequently acts well, but its odor is discouraging. A single dose of atropine sulphate, 1 milligram, acts quite well, so does duboisine in a somewhat smaller dose, so does agaric acid (agaricin) in a single nightly dose, with or without atropine, of 1-4 to 1 grain (0.015 to 0.06); also camphoric acid in 15-grain (1 Gm.) doses, which may be given in wafers or in capsules.

THE USE OF TOBACCO

Our friend, Dr. E. S. Goodhue of Hawaii, sends us a reprint of an article of his, printed in *Unity*. He points out the physical, ethical and moral reasons for refraining from the use of this drug, and says:

"In some cases the use of tobacco throughout life appears to have little effect, one way or another, but we see the same thing in the immoderate use of intoxicating liquors and other poisons. Men who abuse their bodies in the most shameful way will live to be old—some compensatory process we do not understand allows them to live on regardless of their dissipations. But in nearly every case, there is a sharp response—a simple sowing brings in a tenfold reaping; the pleasant early breeze turns out to be a devastating 'whirlwind.'

"It has always been a marvel to me how men who are intelligent, cultured, and in other respects personally cleanly can tolerate the use of a substance so filthy as tobacco. In all its forms it is malodorous. It is incompatible in any mixture. It possesses persistent staining qualities, and to most persons who do not use it, is disagreeable and even nauseating."

ARSENIC AS AN IMPURITY IN DRUGS

The latest bulletin (No. 221) issued by the Laboratory of the Inland Revenue Department, Ottawa, Canada, deals with effervescing sodium phosphate, a chemical which the Laboratory examined in June, 1909, when, out of 148 samples, 25 were found to contain less than 1-2 milligram of arsenic per 100 Grams, and 6 contained less than 1 milligram; 117 being free from contamination. The present report deals with 134 samples of the effervescing phosphate, and Mr. McGill, chief analyst, states that 131 of these were entirely free from arsenic, or contained quite negligible traces. Of the 3 contaminated samples, one contained less than 1 part of arsenic in 100,000, while 2 contained half of this amount.

It is a curious fact regarding these contaminated samples that they were from two manufacturers, and numerous other samples from the same manufacturers did not contain arsenic. Is it possible that contamination occurs after the product leaves the manufacturers' warehouses? Mr. McGill also recalls the results of an examination of 151 samples of borax, made last year, the result of which was that one sample was found to contain 1 milligram, 3 contained 0.4 milligram, 1 contained 0.3 milligram, and 4 contained 0.2 milligram. "Arsenic" is not defined in this bulletin; presumably As_2O_3 is meant.—*The Chemist and Druggist*, May 20, 1911, p. 84.

The Action of Morphine and of Opium On Domestic Animals*

OPIUM has been known and used from remote antiquity down to the present time. The ancient Hindoo books on medicine speak of it. It was known by Egyptians and Greeks. It was used during the Middle Ages and it made up the base of the famous theriac compound. It enters also into the composition of Sydenham's laudanum, which we still use, and which dates from the eighteenth century.

Morphine is the principal alkaloid of opium. It was isolated about 1810 by Serteurner. Its chemical formula is $C_{17}H_{19}NO_3$ but its exact structural formula is not known as yet. Its use became universally extended about 1850.

Up to the present time about twenty alkaloids have been isolated from opium, the principal ones being morphine, codeine, narceine, narcotine, thebaine, and papaverine. Some of its products are narcotic while others are excitants and even convulsives and one, papaverine, is cataleptic.

Here is as a curiosity—a rabbit which has received some papaverine and which is in the cataleptic state. This animal makes no spontaneous movement and keeps the same position which you may give it, provided you respect its equilibrium. Yet this is not anesthesia, for the muscular tonicity is conserved and its sensibility persists.

With the exception of morphine all those alkaloids are found in opium in but very small quantities, so that the action of opium has but a slight difference from that of its principal alkaloid.

Although opium and morphine have been the objects of numerous researches, yet is their study far from being concluded, although their therapeutic indications are pretty well fixed, especially in human medicine. In man morphine calms pain, produces sleep, moderates the respiration, quiets the intestines and produces constipation.

But all these effects are not observed in animals; the action of morphine on man differs from that on the animal and differs variously according to the species of the animal, yet in all it has an elective action on the brain, on some centers of the medulla oblongata, on the spinal marrow and on the intestines. But the action which morphine produces in these organs varies according to the kind of animal.

Formerly it was believed that morphine is oxidized in the system and is eliminated in the form of an oxydomorphine. We know now that nearly all the morphine introduced into the organism, whether it be by the digestive canal or hypodermically, is excreted unchanged by the glands of the stomach and intestines and is eliminated with the excrement. We can always find 80 percent of the morphine administered in the feces. The morphine which is excreted unchanged by the stomach may be absorbed again by the intestines.

Two facts result from this observation: (1) That we can act locally on the intestine by administering morphine hypodermically:

*A lecture with demonstrations, given to the Society of Veterinary Medicine of Brabant, July 3, 1910, by Prof. A. Van den Eeckhout.

(2) In case of poisoning with morphine it is best, as far as possible, to neutralize or to eliminate it by way of the stomach, and so prevent its later reabsorption by the intestines. We should therefore wash the stomach repeatedly, give purgatives and also administer at intervals a weak solution of permanganate of potash, which oxidizes the morphine.

In all animals morphine exerts a specific action on the brain but this varies considerably with different kinds of animals. In man it produces narcotism, and also in the dog, the rabbit, the guinea-pig, the mouse and the frog; but the contrary effect, that of excitement, is produced by morphine on the horse, cattle, the sheep, the swine and the cat.

You see here under the bell a normal frog. When I give the plate a rotary motion the frog turns its head in the contrary direction; when I excite the animal it jumps and saves itself; if I place it on its back it returns immediately.

On the other hand you see here a series of frogs all of which have had morphine and all are under its influence.

Notice the first subject. It no longer makes any spontaneous movements; it shows no tendency to run away; it does not turn its head in the contrary direction to which I turn it; and the animal behaves the same way as does a frog from which the brain has been removed. It has retained its reflexes, and when I excite it it runs away and you may observe that its movements are coordinated, that only its cerebral hemispheres are affected.

Now observe the other frogs. This one still runs when I excite it, but its movements are incoordinated; it crawls but does not jump; it still turns over again when I place it on its back. But that other frog does not turn over, and its respiration is arrested. In all these frogs the reflexes of the spinal cord are preserved.

Morphine, we therefore see, does narcotize the frog. It acts first on the cerebral hemispheres, then the action extends to the other parts of the encephalon, to the corpora quadrigemina, the cerebellum and the medulla oblongata, and all its centers become paralyzed, one after another.

We now pass to the rabbit. This animal is also asleep. Here you see one which has received morphine and lies stretched out all its length. Its head is not held up but it lies quietly on the ground. If I put it on its side it retains this abnormal position and does not right itself, as does this control rabbit. Its general sensibility is dulled but is not totally abolished, as it would be under the influence of chloroform. Morphine sleep is analogous to profound normal sleep and the animal awakes when it is excited, lively, but soon falls asleep again. The auditory sensibility persists also.

On the dog morphine acts also as a hypnotic but it rarely comes to a complete sleep. Certain dogs, however, do fall into quite deep sleep, especially when they are placed in a quiet, retired corner, yet this is exceptional. Generally speaking such dogs as I show you here fall simply into a state of stupor and somnolence. The dog shuts its eyes as if to sleep, but it quickly wakes up and changes its place and lies down again to sleep. During this period of torpor the dog has hallucinations; it cries, and barks and changes its place frequently. Its auditory and general sensibility are intact, and, as you see, the dog rises when I strike him and even when I excite him with my voice. Its walk is peculiar, the hind legs being constantly semiflexed, so that it walks hyena-like.

Let us examine now the action of morphine on the cat. Here the picture is altogether different. We have no narcosis here but on the contrary the phenomena of excitement. Look at these two subjects each one of which received morphine hydrochloride hypodermically. They are highly excited and are constantly on the move. Now they throw themselves against the sides of the cage as though they wanted to run after some imaginary object, and then again they roll themselves and seem to experience a great deal of pleasure, and at times they rise and move their paws about like a cat playing with a mouse. Here is nothing that would remind us of what we have noticed in the hare and the dog.

Lastly let us show how morphine acts upon the horse. Small doses produce on

this animal no well-marked phenomena, but doses somewhat larger produce excitement.

Look at these two subjects: One had received 50 centigrams (grs. 7 1-2) and the other one Gram (grs. 15) of morphine hydrochloride hypodermically. These animals are excited, their eyes are bright, their ears erect; they move about constantly, either turning about where they are or pushing against the wall; they paw with their feet and neigh. Their walk is stiff, the joints hardly flexing. The general sensibility is intact and they react readily when they are pricked in any sensitive region.

These experiments prove that the action of morphine on the brain varies considerably with the kind of animal; but that is not all, the action on the same animal species varies also according to the size of the dose administered. The effects of small, medium or large doses are best studied on human beings, who can inform us of the subjective feelings which they experience.

In man, small doses of morphine produce a certain sense of comfort and remove all disagreeable sensations. This altogether subjective effect eludes all experimental control.

This explains the use of opium by Orientals, who expect from it intoxication, pleasant dreams and phantasmagoria. The morphinomaniac after an hypodermic injection of morphine experiences a sensation of comfort, because of the disappearance of all sensations, agreeable and disagreeable, normal and abnormal, such as those of cold and heat, and hunger and fatigue.

Is this sensation of well-being present in our animals also? Probably yes. The dog and the cat have hallucinations, and the cat rolls and plays with its paws, and seems to pursue an imaginary mouse. It is possible that this sensation of comfort exists in the horse too and this seems to result from what certain clinicians have told us, that vicious and nervous horses are often calmed after an injection of a small dose of morphine. But I hasten to remark that this is not the general rule, for most bad horses become more excited after a morphine injection.

Medium doses of morphine influence first of all the functions of the cerebral cortex and act more especially on the sensitive centers. It suppresses in man all slight pains, but the severe pains, such for instance as those caused by cutting instruments or by very painful inflammations, are perceived yet.

Seeing, hearing, and association of images (ideas) are intact.

The principal phenomenon which we observe here is the suppression of slight pain, and for this reason morphine is used in all cases where insomnia is caused by excitement and suffering. Morphine, in medium doses, does not put a man to sleep but it quiets his pain which keeps him awake and sleep comes about indirectly. Morphine procures euphoria hence its use in cancer, tuberculosis, etc.

Does a medium dose of morphine act on animals in the same way, i. e., by suppressing pain and procuring euphoria? It may be difficult to answer this question, because it concerns a subjective sensation, and an animal generally does not manifest a feeling of pain before it becomes very vivid, yet judging from what we observe in animals under great pain, we are induced to say that morphine does calm pain in the dog but does not do so in the horse, nor in bovines, nor in the cat.

Lastly, morphine in large doses produces profound sleep in man and sensibility is apparently totally abolished.

In our domestic animals the reaction is altogether different.

The dog reacts to morphine nearly like man. He falls asleep, but the sleep is less profound; he awakes at times, barks and falls asleep again; his sensibility is quite dulled and he frequently lets himself be operated upon without manifesting any pain.

In the horse we observe nothing of this kind. This animal never sleeps under the influence of morphine and remains always sensitive to a prick and a cut of the knife, and often the morphine seems to augment the sensibility, as in the case I show you here:

We have injected morphine experimentally in twenty horses, and all of them have

reacted like normal animals, and at times quite decidedly. We believe, therefore, that we are entitled to say that morphine is not a central analgesic for the horse, whose vivid pains it does not calm.

Recapitulating we say: Morphine exercises in all animals a specific action on the brain. In some it produces sleep, while in others, on the contrary, it produces excitement and a kind of inebriation, and in all it seems to produce a feeling of well-being and causes the disappearance of disagreeable sensations.

Morphine is not, however, a central anesthetic in the same sense as chloroform. In the animals which it puts to sleep, it dulls profoundly the sensibility to a point that they are very frequently able to endure the acute pain caused by the surgeon's knife, while in the animals which morphine does not put to sleep it does not suppress the perception of pain.

HALLUCINATION AND DECEPTION AS ILLUSTRATED IN MOHAMMED

Referring to the miracles which are reported of Mohammed, Obbink makes the following interesting statement, which may throw considerable light upon the mental processes of the prophet.

Even admitting that such and such a miracle as is attributed to him was actually reported by himself as having taken place, is it then right to speak of "intentional deception"?

We have here to consider his personal peculiarities. It is beyond doubt that he showed symptoms of a very irritable nervous system and that he suffered from hallucinations. Hallucinations are delusions of the senses which are traceable to the brain, and the idea that they are founded on realities is, according to scientific results, hardly tenable. When it is established that the subject-matter of the Prophet's hallucination, when the spell was over, was regarded by him as having actually transpired, then we have, by it, the possibility to be just in judging of Mohammed's inspiration, whether it be real or supposed.

L. Krehl has proved that hallucinations are actual sensations and not imaginary ones. The patient sees, hears, and smells actually and does not merely believe he hears, sees and smells. If we desire to dispute the varying of the subject's senses with him, we then receive from him the same answer which Lauret received from one of his patients:

"I hear voices because I hear them; how they come about I know not, but they are to me as definite as is your own voice to me."

It is clear that under just such conditions the representations and things which are connected with his state for the time being force themselves upon the patient, so that the contents of his hallucinations come pure from his heart and permit us to have a look into his heart, while his acts and words in his normal state permit us to do so but approximately, only because of the many hindering circumstances (self-constraint, etc.) standing in the way of perfectly free expression. Hence it is possible also that Mohammed did not become personally better and holier by his inspirations.

As an honest enthusiast he may have been perfectly persuaded that God spoke through him, but he received only just the revelations of which he was in need. His revelations were only the echo of his own soul although, notice! he himself saw in it a real divine communication. This view of the matter must be constantly borne in mind.

We therefore should not berate him as a deceiver although he did many things which gave occasion to rate him thus. Neither should we condemn him as a sensualist, although he committed many an immoral act, and we should not excuse vice by disease. Nor should we lay the name of "false prophet" to his charge, although he founded a religion which thoroughly antagonizes Christianity.

Mohammed was better than his religion, better because he knew not himself how mentally sick he was. He thought he was a prophet, while he was a pseudo prophet.—*Glauben und Wissen*, August, 1904, pp. 269-270.

Some Clinical Failures*

IT may be conceded that there is an average of human nature in the medical profession, and, like other people, physicians are prone to dwell on their successes rather than on the failures. I have thought, however, that we might derive a measure of mutual benefit by discussing at times some of our failures, and to this end I ask your indulgence for a little while, that I may submit for your consideration and criticism a brief report of a few clinical failures in my practice.

Shortly after I commenced the practice of medicine I was called, one day, to see a negro boy about six years old and found him suffering from pain in the abdomen. Considering the age of the patient, I naturally surmised that I had a case of plain bellyache, but upon making some investigations, I began to have some doubt about that. There was some tenderness but no tympany, and I found that palpation was painful, which I had been taught was characteristic of inflammatory conditions, whereas pressure is grateful in colic. I inquired carefully as to what the boy had been eating, and also asked if he had been hurt in any way, but elicited no suggestive information.

I gave him an enema, had a turpentine stupe placed on the abdomen, and gave him some Dover's powder, with instructions to renew the stupe and repeat the anodyne if necessary, and to give a good dose of epsom salt next morning. The following day I found the patient much relieved; the bowels had moved well and there was less tenderness under palpation. I thereupon renewed my instructions and dismissed the case conditionally.

Three or four days later I was sent for again, with a statement that the boy was worse. When I reached the bedside I found him suffering intensely with what appeared to be diffuse peritonitis. Exactly what treatment I resorted to I do not recall now, but I failed to relieve the patient, for two days later he died. I said that he died from peritonitis, but the father recalled my inquiry at the first visit as to whether the boy had been hurt in any way, and he also recalled that the boy had reported two or three weeks before that he had been kicked "in the stomach" by another boy nearly grown and was ordered away from a butcher pen where he was loitering.

The father thereupon called upon the coroner and requested an investigation. An inquest was held, and the jury, after hearing my statement, ordered an autopsy. I asked a young medical friend to go with me and we made a careful examination of the body. There were no external signs of violence, and when I opened the abdominal cavity we could find no indication of bruise or contusion, but we did find the vermiform appendix completely necrosed and in a granular condition. There was no pus. I reported to the jury that there were no indications of violence and that death was apparently due to natural causes, and they formulated a verdict to that effect.

Remember that appendicitis had not at that time become a popular or fashionable affliction, and I was not looking for

*Read before the Clarendon County Medical Association, March 29, 1911.

anything by that name when I was treating the boy. I did not learn until several years later that external violence was recognized as one of the causes of appendicitis, and then I began to doubt the correctness of my professional report to that jury of inquest, although at the time I was complimented by a good old physician upon the excellent frame-up of that report.

About ten or twelve years ago I was called to go several miles in the country to see a sick baby in a family I did not know, and on a plantation that was somewhat out of my regular beat. When I got to the house I found an infant some two or three months old greatly disfigured with blebs, from the size of a pea to that of a hen's egg, distributed about the face, head and ears and on the hands and forearms. There was no pyrexia, no disturbance of the bowels, and the infant was contentedly nursing an apparently healthy mother.

I was informed that the blisters had appeared during the day and night before. I had a vague recollection of having read about some such skin affection, probably having heard it described in didactic lectures, but had never seen the condition clinically. I did not call the thing by any name then, but proceeded to evacuate the blebs of their watery contents, dusted the surface with a bland powder and applied cotton and bandages, so arranging the latter as to prevent the child from injuring itself by scratching. I learned afterward that I probably had a case of acute pemphigus vulgaris, a rare disease in this country, and one that occurs, as a rule, only in children and usually runs a favorable course except in ill-nourished ones. (Stelwagon.) This child was in a well-nourished condition.

When I had finished the dressing, the old man of the house, grandfather of the patient, said, "Doctor, here is another patient for you over here on the bed." I turned my attention in that direction and found a little girl of about six years, with considerable fever, headache, a brown-coated tongue, no appetite, and constipated. With no history of exposure and no special pathognomonic features, I judged this to be a case of autointoxication, possibly due to errors of diet. I put her on treatment to relieve the fever and headache and to clean out the intestinal tract. I did not make an appointment to return, but told the people to let me know if the children did not get along satisfactorily. That was on Tuesday, and as I did not get any further report, I supposed the patients were progressing favorably. I don't know whether I did not feel some degree of satisfaction at having handled the cases so nicely.

The next Saturday I met a man who happened to know of my treating the children. He stopped and asked, "Doctor, what was the matter with those children over on Jones's place?" In a rather noncommittal manner I told him that they were affected very differently, and in turn asked him how they were getting along. "Why," he said, "they both died the next day after you saw them."

From that day on to this I have never been able to figure out to my own satisfaction what caused the death of those two children. Possibly the outcome of the cases had something to do with the fact that I never had another call to the Jones place. I never heard any expression of dissatisfaction from the family, nor did I ever receive my compensation for my visit.

A. S. Todd.

Manning, S. C.

DESPERATE GUNSHOT WOUND OF THE ARM

On the evening of December 29, 1899, I was called to see a boy of 16 who had been shot in the right arm, the charge tearing away the greater part of the biceps, breaking the humerus at about the middle, and shattering the deltoid into fragments. The bone was broken, not, however, by direct action of the shot, but by the force of the explosion. There were no shot marks on the bone, but it was stripped of periosteum for about an inch on each side of the fracture, but the tissues were full of shot. The clothing had taken fire and the wound and adjacent skin had been badly scorched. The wound was eight

inches in length, not counting the injury to the biceps.

Contrary to the advice of my assistant, I decided to attempt saving the arm. The plan I followed was to cut off the denuded bone, drill holes through the ends and tie them together, and put on splints to immobilize the member and trust to nature and

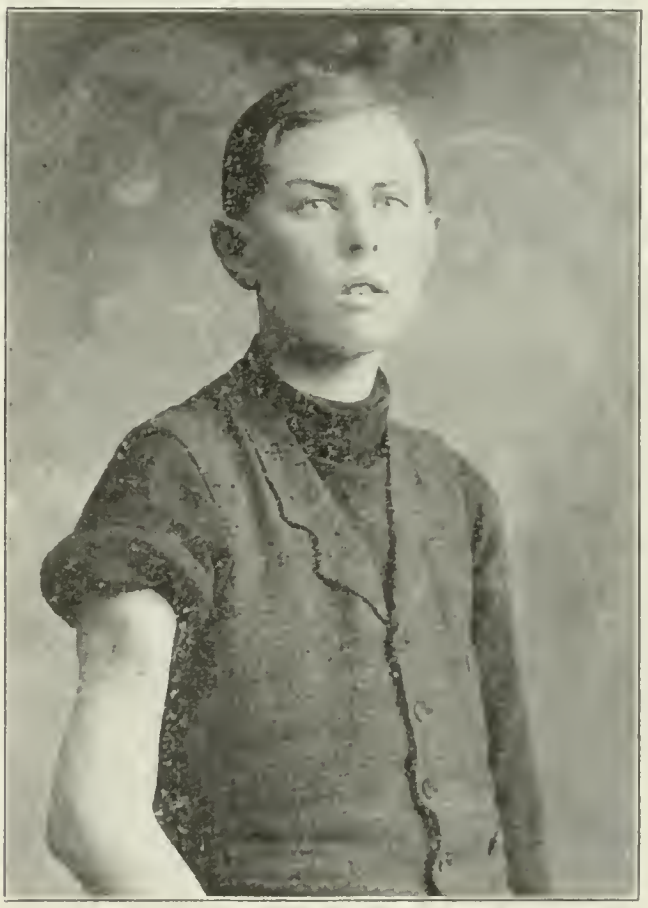
No. 1. Picture taken on the forty-fifth day after accident

good care to produce results. My reasons for being willing to make the attempt were: I knew the boy from birth and had faith in his tenacity of life to enable him to "come back," and in the further fact that the brachial artery was uninjured. With a subject less promising and the artery for supplying the arm in doubtful condition, I should not have made the attempt.

After getting all the shot out of the wound, trimming off all devitalized tissue, and stitching together all the sound strips of muscle I thought might be saved, I did up the member as indicated above. We had to dress the arm every twenty-four to forty-eight hours, and for the first six times this was done under chloroform. We used dry antiseptic dressings all the way through, but had to ring the changes, from time to time, including iodoform, aristol, boric acid, and so on. The cutting away of the two inches of bone did more for us than the removing of what would cause a failure by reason of the presence of dead osseous tissue—we lessened the length of the wound from eight inches to six.

On the morning of the 45th day, photograph No. 1 was taken. The boy was just able to sit up, with me behind a screen to hold him up while the snapshot was taken.

Picture No. 2 was taken just a year, to an hour, from the day he was shot. Two years and a half after the accident the young man played a game of tenpins with me, using a 16-pound ball, and I had to bowl over 182 to beat him. He is a bricklayer and plasterer by trade, can use a



No. 2. Taken one year after the accident

trowel from morning to night, day after day, and can pick up a candy-bucket of cement mortar and swing it around his head.

One thing more I will mention that is unusual, namely, the family were not rich, and a trained nurse was out of the question; so we, among us, took care of this case from first to last. I feel that to do

such work under such circumstances is one of the bright spots in the life of a country doctor. I am simple enough to be proud of it. I am afraid that the average surgeon who has done his work only under the most favorable conditions would not have tackled the job or would have been a fit subject for confinement in some sort of an institution by the time he got through. I want to say to my country brethren that to be the most useful, you have to be resourceful and on the alert all the time, and then, but not least, you must have "sand."

Dr. Knowles and his favorite roadster

You must be guided by correct principles, and use all the good, cool judgment you can call to your aid.

Two very prominent surgeons in one of our western cities had a similar case only a month or two after this one came into my hands. They tried to save the arm and lost both arm and patient. Gangrene of the hand and arm was the cause of the failure. The failure came because they did not recognize the fact that the brachial artery had been injured. Had that been the case with me, I should have amputated as soon as I could after getting into the house. If the circulation at the wrist is good, we can nowadays, by making use of the antiseptics (which we did not know how to use a half century ago), take chances for a few days, and then amputate if necessary.

One more suggestion. Had we had the hyoscine, morphine and cactin combination, we should have got along easier with our case. Directions to give a dose about an hour before dressing the arm would have saved us the trouble and risk of giving that boy chloroform for the first six dressings. Wouldn't that have been nice? Wouldn't it have made the doctor's work easier, the patient's suffering less?

J. Knowles.

Logan, Ia.

SUNSHINE TREATMENT

Looking through the yearbook of the progress of medicine during the year 1910 and after reading "Roentgen Therapy in Dermatology," I am prompted to write this for publication in in my favorite journal, The American Journal of Clinical Medicine.

Fifteen years ago I began the use of sunshine for the removal of warts, moles, ringworms, etc. Thinking I was perhaps a pioneer in this, I afterward wrote an article for *The Medical World*, which caused a long list of questions to be poured in on me. Many of these I answered, but the job finally became monstrous, and after writing an explanation to *The World*, I quit.

Among the many letters received, one came from Dr. R. R. Teller of Arkansas City, Kansas, telling me that he had cancer of the tongue, and stating the different treatments he had gone through with, but without benefit. He had all the glands removed, cervical, submaxillary, sublingual, and parotid. He had the tongue pierced, drawn out, tied to the belt around the waist, and zinc-chloride plaster applied for three hours. He had drank gallons of violet tea, all to no purpose.

In the meantime, Dr. C. F. Taylor, editor of *The Medical World*, had sent me a reprint from a San Francisco journal telling of an old physician who had been using sunshine for fifty years, having more than 2000 cured cases to his credit, ranging from a suspicious mole or wart to carcinoma of the mamma, and claiming to cure all. He did no other kind of work. This reprint convinced me that this old brother knew

more of the method than I had ever dreamed possible. Another brother from Indiana also claimed to have been using the sunshine treatment, though he did not impress me as being onto the job.

When I got the article from Dr. Taylor, I mailed it to Dr. Teller, who immediately went to California in search of the old doctor (Thayer, I think, was his name). He found him in San Diego and wrote me his experience when he got home. He said Dr. Thayer had 2000 cases and many more to his credit, although in all the thousands, he had never treated cancer of the tongue. Still he did not hesitate to give him a seance by turning on the rays, and at the end of twenty minutes he had a space a half an inch deep and one inch long broken down, burned out. He described the ordeal as awful. The last time I heard from him—three months from the time of operation—he said his tongue felt natural and was sound and well. The space destroyed was nearly filled in. Whether he continued well or not, I do not know.

Since that time the uses to which I have put concentrated sun-rays have been many, though, as a country physician, my field is circumscribed. The only time I ever used it on what I was satisfied was a cancerous growth was five years ago—on the arm of a woman, midway between shoulder and elbow. This had eaten down to the periosteum, and was about the size of a half-dollar piece. It is entirely well at the present time.

For a time I made no claim for it except as a cautery, a cautery that was perfectly aseptic, the depth of which was absolutely controllable, and gave a minimum of pain. As soon almost as the glass is withdrawn, the sharp agonizing pain of the burn ceases. Though not exactly painless, it seems to carry a certain degree of anesthesia after using for a short time. We know how long and how bad the pain from a redhot iron, scalding water or hot ashes lasts.

I have used two methods. One instrument is a common 4-inch hand-mirror, deeply concave, the other is a 2-inch magnifying glass. The area which this will cover is about the size of a grain of corn, when brought to a focus. I now have a much larger lens and can use it with more celerity than the smaller glass.

Lately I have come to believe that in this we have a treatment for lupus vulgaris, epithelioma, etc., without carrying to a degree of cauterization. I have been in the habit of giving daily treatments, and by degrees breaking up the morbific cause responsible for each of these diseases.

If this is of interest to your readers, I will try to explain more of my way and method.

S. W. Brasfield.

Humboldt, Tenn.

COCAINE POISONING IN URETHRAL WORK

On page 869 of the August number of Clinical Medicine, you quote from *The Therapeutic Gazette* a report of a death from injection into the urethra of a very small quantity of a 10-percent solution of cocaine. I wonder if you can give me or your readers in general any information as to the toxicity of cocaine when used upon the urethra. I have always—for years—had a hazy idea that the use of cocaine within the urethra is very dangerous. Now and again I see just such a quotation as the above; but never have I seen an authoritative article nor statement dealing with the subject.

Cocaine used within the urethra positively does appear to be fraught with greater danger than when used elsewhere. This I have seen stated so often that it seems it must be true; but no one seems to know, or to say, how much is even possibly safe.

One sees cocaine advised in urethral work—in ointments, solutions, etc. Is there really no authoritative information upon this point?

I myself never have used a drop nor a particle of cocaine within the urethra. I am too impressed with its reputed danger. I well remember a medical companion of mine almost ruining himself, twenty years ago, by the death of a man in his office into whose urethra (deep urethra—and this seems to be the dangerous part) he had injected a "few drops" of a cocaine solution

(I do not recall the strength). Surely, some of the genitourinary men can let light in upon this question. Do they use cocaine within the urethra (deep), and, if so, how many drops, of what strength, and under what precautions?

W. H. Groves.

Burnhamthorpe, Can.

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[When we read Dr. Grove's letter the first time, we thought we could give the information desired, without difficulty, but upon turning to the library for help, we found that it was not so easy. The books on materia medica, on genitourinary surgery, and on toxicology are surprisingly obscure on the point which he raises, and the current literature for ten years back is sadly lacking in information. That cocaine often kills, more often produces alarmingly dangerous symptoms, we all know; that it is less safe when applied to the urethra and as an anesthetic for the extraction of teeth than for use in the eye, we are also conscious of in a hazy way. But just what is the safe dosage, if there is one, the books fail to inform us.

According to Hare, about 250 cases of acute cocaine poisoning, with 13 deaths, have been reported, but Witthaus and Becker, in the last edition of their "Toxicology" (1911), report 67 fatalities, 41 of these being described in some detail. In 7 of these 41 cases the poison was taken internally, usually in enormous overdosage. In the remainder of the cases it was used locally, hypodermatically, and in the subarachnoid space. Death followed its application to the eye, nose, pharynx, larynx, mouth, ear, skin, rectum, etc., but relatively by far the largest number of deaths occurred after it had been used within the urethra, 7 in all having been ascribed to this cause.

Of these seven deaths, the first was that of a man of 29; one dram of a 20-percent solution was used; death in twenty-five minutes. The second was a man of 44; one dram of a 4-percent solution used; death in four or five minutes. The third, a boy of 2 1-2 years; 1-2 grain of cocaine injected into the urethra; death in three days. The fourth, a man of 72; one Gram (15 grains) injected into the urethra; death in a few minutes. The fifth was a young man who died immediately after the injection of a 20-percent solution. The sixth, a man of 24, died in a few minutes after urethral injection of 7 Cc. of a 10-percent solution. The seventh was a man of 25, who died almost immediately after the injection of 1 Cc. of a 20-percent solution.

In all of these cases, there was manifest overdosage, except possibly in the second, and even in this the amount of the 4-percent solution employed was too large; but the large percentage of deaths in the urethral cases (1-6 of all the deaths) shows that this area is a peculiarly sensitive and dangerous one, and that probably because of the rapidity with which the urethral mucous membrane takes up the poison.

Hare says that aqueous solutions of cocaine hydrochloride may be used in the eye, three to five minims at an application, in 1- to 4-percent strength; the same strength is used in the nose and throat, though presumably a somewhat larger amount of the solution is used. To anesthetize the rectal and vaginal mucosa, 10-percent solutions are permissible, on account of the slower absorption from these areas. In the urethra, he says, it is not safe to use more than 1- or 2-percent solutions.

Bonneau and others, within recent years, have recommended the employment of 1- to 2-percent oily solutions of cocaine alkaloid (cocaine base) to the urethra. The absorption is slower and the anesthesia safer and more prolonged than when the aqueous solutions of the cocaine salt are employed. Within recent years, cocaine has been employed much in association with adrenalin, the latter substance contracting the local vessels, thus delaying absorption, thereby conducing to safety, while reducing the danger of hemorrhage. With the adrenalin, 1-2 to 1-percent solutions of cocaine are generally found sufficient. The danger is further reduced by controlling the circulation with the elastic ligature, which should always be employed in urethral operations.

The symptoms of acute cocaine poisoning are loquacity, sometimes progressing to delirium, dryness or "scratching" of mouth

and throat, difficulty in swallowing, a feeling of suffocation, vertigo, faintness, numbness of the extremities, cold perspiration, rapid feeble pulse, shallow respiration, and, in severe cases, convulsions and collapse. The pupils are usually dilated.

In treating acute cocaine poisoning, according to Heineck, the physician should raise the trunk and lower the head, practise artificial respiration if symptoms are severe, and internally give strychnine and nitroglycerin or inhalations of amyl nitrite. Morphine, though not an antidote, is considered the best antagonist to the action of cocaine, by most writers. Metzenbaum, in a paper read last year before the Ohio State Medical Association, said that hyoscine possesses antidotal properties when given before cocaine, and that it is "antidotal against cocaine in those cases where cocaine poisoning arises unexpectedly, when the cocaine is being given in what are considered physiological doses." Heineck says that in all forms of cocaine poisoning we should empty the bladder and stimulate urinary secretion.

We shall appreciate it if any of our genitourinary specialist friends will add to the study of this subject. Personally we should prefer not to use cocaine in the urethra, since there are now a number of other local anesthetics which are equally efficient and much more safe.—Ed.]

THE EXCRETION OF UREA

The amount of urea excreted on an average diet varies from 15 to 40 Grams. On a nitrogen-free diet the amount of urea is 2.2 Grams. The amount of urea excreted,therefore, varies with the diet.

A marked pathologic increase in the urea excretion is observed in febrile conditions, in diabetes mellitus and insipidus, after the resorption of an exudate in malignant conditions, and in exophthalmic goiter. In some cases of diabetes mellitus, the urea output is diminished, owing to delayed absorption from the intestines. The ammonia, however, is markedly increased.

Any pathologic condition associated with destruction of hepatic tissue or a diminished blood flow to the liver causes lessening of urea excretion. This condition we find in acute yellow atrophy, carcinoma, and in cirrhosis of the liver. In acute nephritis there may or may not be a diminution of the urea excretion, this depending upon the extent of renal insufficiency. In chronic nephritis, urea excretion fluctuates, varying with the disease. In the early stages with large amounts of albumen and casts, the urea output usually is normal, in the later stages it is mostly greatly diminished. In melancholia and advanced general paresis, urea is diminished.

In epilepsy and hysteria, urea may either be diminished or increased. Increased excretion of urea is also found in pernicious anemia, scurvy, leukemia, and gastrointestinal disorders.

The following drugs also give rise to an increase of urea: caffeine, ammonium chloride, potassium chloride, morphine, codeine, lithium carbonate.

Chronic lead poisoning, chronic rheumatism, chronic nephritis, osteomalacia, general paresis, Addison's disease, and chronic alcoholism show a decided decreased elimination of urea, probably of nervous origin.

Urea probably is formed, chiefly, in the liver, but the spleen and lymphatic and secreting glands also participate somewhat in its generation. After being formed, it passes into the blood current and is carried to the kidneys, where it is excreted.

In health, the absolute amount of urea is increased by a hearty mixed diet, by strenuous exercise—therefore, more urea during the day than during the night, the average proportion being as three is to two. The ingestion of ammonium compounds, especially ammonium chloride, augments the urea; so also does water in large amounts, which increases metabolism. This same result follows hot baths.

The absolute quantity of urea formed is increased in the early stages of febrile conditions, except in acute diseases associated with dropsy, such as acute nephritis; It is also increased in those accompanied by exudation, as in cholera and intestinal disorders with severe diarrhea, and during convalescence from acute diseases, especially those in which there has been a dropsical fluid which is being reabsorbed.

In intermittent fever the urea is increased before the chill, but diminished afterwards. In diabetes insipidus, there is a great increase, often to 130 Grams. The amount of the urine is large and the gravity low. In diabetes mellitus due to increased metabolism, the total urea is usually above normal. In chronic interstitial nephritis, although the absolute quantity of urea is

Dr. T. B. McAnally, Yantis, Texas

usually diminished, it may be, rarely, increased. This is especially true in children. In chronic gout we may have 50 or 60 Grams excreted in twenty-four hours.

A diminished quantity of urea in health is shown with the ingestion of only small amounts of nitrogenous foods, a vegetarian regimen or a starvation diet; also after free perspiration, a certain amount being eliminated by the sweat-glands.

In normal pregnancies, many times nitrogenous elements go to the fetus, and, therefore, are not excreted as urea. The average amount in normal pregnancy is abour 20 Grams in twenty-four hours.

After small doses of quinine the urea is low. Long continued ingestion of excessive quantities of water results more or less in the reduction of the total amount of urea eliminated.

In disease, the urea is diminished, depending upon the degree of diminished metabolism and secondly the capability of the kidneys to excrete urea. In advanced chronic forms of kidney disease, it is usually markedly diminished. In convalescence from acute febrile disease the urea is low. In all diseases with extensive dropsy, until reabsorption occurs, in excessive vomiting and diarrhea, it is decreased, the urea being then eliminated by other channels. In all degenerative changes in the liver, low urea excretion results, due to reduced hepatic metabolism.

Urea is probably a means of defense against organic poisons, as it forms salts with organic acids, which are rapidly eliminated, such as amidobenzoic acid and nitrohippuric acid.

Urea is generally considered as almost absolutely nontoxic, the animal body withstanding the injection of very large quantities without appreciable injury. When uric acid is destroyed in the body, the nitrogen it contained is eliminated as urea.

J. Favil Biehn.

Chicago, Ill.

A PLEA FOR LEGISLATION

At this time of the year the bulletins of the various medical colleges are scattered broadcast; not a day elapses that I do not receive one or more. And what is the object of this extensive advertising? It is to encourage and recommend young people to take up the study of the medical profession; to spend years in obtaining the preliminary requirements and then four or five years in the study of medicine alone, or, I should say, the study to enter the profession, for medicine nowadays has little to do with the profession. And what is the purpose of all this education? Whom is it for? Why! for the deer peepul, so that they may have more slaves to work without wage.

It is universally agreed that the medical profession is the poorest paid of any, unless it be that of writing poetry. Everywhere the doctors are listed as poor pay or bad pay. I personally know several physicians who openly state that "no one thinks of paying them and they shall pay no one."

This is the reward for not less than seven long years of the hardest kind of work and, in many cases, of positive hardships. Most of the medical journals that come to my hand are teaching the doctor business methods. Some state that the higher schooling is for the protection of the deer peepul. There is lobbying in all the legislatures to increase the term of years and arise the standard of the profession, but not one move is made by the political doctor toward the making of laws whereby the physician can collect his fee for services. South Dakota is the only state in the Union, that I know of, that recognizes the rights of the doctor. In that state nothing is exempt from collection by the doctor and the undertaker.

Residence and office building of Dr. L. D. Johnson, Whittier, Colorado

So far as it lies in my power, I shall use every effort to discourage students from taking up preparation for the medical profession. I am a successful doctor—that is what all would call me—because I cure my patients, seldom having a failure, and yet the great mass of them have no intention of paying my bills. All medical literature recognizes this sad state of affairs, yet makes no effort to remedy it.

Years ago, when I had a good trade, I thought I would give it up and become a DOCTOR—it was such a respected and respectable profession—only to find, at this late date, that I was never more grievously mistaken.

Who is the doctor, anyway? Oh, nobody, only the "doc;" and the deer peepul dock him whenever they get the chance. They enjoy calling him out of a good warm bed at midnight, to ride fifteen or twenty miles to relieve a man suffering with renal colic, cussing him for not getting there quicker, and then swearing that he shall be paid at once, only to forget all about him and his discomfort as soon as the patient's belly quits aching. And we have no law to enable us to collect. About sixteen months ago I had taken care of a man's family through a pneumonia and a cholera infantum, besides one or two lesser ills, and when I asked for my pay he said he was building two houses and could not afford to spare the money to pay me. He works at good wages every day and makes no attempt to do justice to me. This is one great reason why I will not encourage bright young people to follow in my footsteps.

My second great reason for not encouraging young men and women to study medicine is summed up by *The Medical World* for July, where it is estimated that many doctors make $750 per year, the majority make from $1000 to $3000; more between $1000 and $2000 than between $2000 and $3000. What inducement is this pittance to a young man desiring to have a home and rear a family. A woman doctor having a husband who is making something might be willing to accept this, but either to man or woman on whom the cares and responsibilities of this life lie as a heavy weight the meagre sums mentioned would not be an inducement.

Now, when it is morally certain that they will not be able to collect more than fifty percent of what they earn, no matter what business method they pursue, how is it possible to make ends meet? Will the Owen bill now before Congress help them collect their fees? No! The laws of most states encourage the—thief? Oh no, but they do shield the man who puts his hand in your pocket and steals your medicines, your appliances, your time and your strength. He is not a thief, but more often

than not a most respected citizen and a pillar of some religious denomination. He may own a home worth any sum, have several hundred dollars' worth of furniture, and horses and carriage, and all that, yet the exemption clause protects him.

If the doctor is the sick man's best friend, then he should be the first one to be paid, and the doctor's bill should stand in law as a first mortgage either on real estate or on chattels. Until this is done, it is useless to encourage young people to take up the profession, and I consider it an injustice to them to suggest it.

DR. JOHN A. SNOWDEN
Of Winchester, Kentucky, an old and dear friend

My third reason for not encouraging the young man or woman to take up the medical profession is the lack of medical-boards reciprocity between the states. It frequently happens that a doctor must, for private reasons, move to a different climate. This move must necessarily be into a different state. We know that the examinations before the health boards are not always "on the square"; that you may be flunked and never know the reason why. There should, by all means, be a law compelling the board to return to the examined his examination sheets.

Remove these obstacles; and by so doing raise the respect of the deer peepul for the profession. (They will always respect that for which they MUST pay.) Then we shall all take pleasure in inviting young, bright minds to enter a profession wherein they will be enabled to shine and where ability finds its greatest reward. At best a doctor is necessarily the most charitable individual in his neighborhood, for rarely is a case refused when the patient acknowledged his inability to raise a penny. We would not see him suffer, but it is for those who systematically beat us that we would have these laws made and enforced.

LEWIS H. FREEDMAN.

Crowell, Tex.

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[You are dead right. Every word you say—and it comes from your heart—is a protest against the preposterous relation of the doctor to the community. Read the first editorial in our June number, and tell us why the plan there suggested would not meet the difficulty. But don't blame the medical colleges. The moment you begin to restrict the influx of new doctors by the regular portals, the number of people increases who break into medical practice without a medical education. Look at Germany and California.—ED.]

DIPHTHERIA-BACILLUS CARRIERS

Nishino reports, in the *Zeitschrift für Hygiene* (abstract in *Wien. Med. Woch.*, 1910, col. 1897), the result of his examinations in many families in which cases of diphtheria had occurred, stating that in those members of the families not attacked he found diphtheria bacilli with relative frequency—a fact of great importance for the question of the spread and limitation of the disease. The throats of such bacillus-carriers contain the bacilli, usually for about ten days, and according to Nishino, their presence is not influenced either by

subcutaneous injections of serum or by local treatment.

This is a very important finding and demonstrates the justice of the ruling of the boards of health according to which all members of the families in which diphtheria cases occur must be quarantined. This quarantine should be as strict and thorough or complete as possible, and nobody who is in a house at the time diphtheria is diagnosed should be allowed to leave it until no longer diphtheria bacilli can be found in the secretions from the nasal and nasopharyngeal mucous membranes of any member of the household.

This report brings to the mind of the writer a case which only recently has come to light in a city near Chicago. Within four years there have occurred six cases of diphtheria, three terminating fatally, in pupils of one of the public schools of that city; *all of them from one of the primary rooms*..

Investigation showed that a single pupil, a mentally defective child, with adenoids and enlarged tonsils, had been in that room for five years. This child had been frequently indisposed, presumably mainly from "colds." Its illnesses, an examination of the records showed, corresponded closely to the time when the cases of diphtheria developed. This child was out of school the major part of one school-year; during this year no diphtheria was present in the school.

These facts, when brought out, two or three months ago, suggested so strongly that this child was a diphtheria-carrier, that a culture was made from the throat. The Klebs-Loeffler bacillus was found. A few weeks later another culture was taken, with the same result. As operative measures, to clean out this throat, have been refused, Dr. Biehn of our laboratory suggests inoculation with staphylococcus aureus.

THOSE PRIZE PAPERS

In the November number of CLINICAL MEDICINE we shall announce the prize winners in the contest for the most helpful paper in our September issue, as promised editorially in that number. If you have not sent in your vote as yet on that issue, please do so at once. The response has not been nearly as large as we expected it would be. We hoped there would be *hundreds* of votes.

The contest will be continued this month. Do not fail to let us know which of the papers in this issue of THE CLINIC you consider the most helpful. The one who gets the largest number of votes will be awarded a prize of $25, second $15, third, fourth and fifth smaller amounts, possibly payable in books or other articles of value. Remember that members of the editorial staff of CLINICAL MEDICINE are excluded from this competition. Let us hear from you at once.

LETTERS TO A DOCTOR FROM THE LAITY

Enclosed I am sending you a few letters that have been sent to me by my patients, and as they seem to be a little funny to me I thought that I would send them to you, and if you saw fit to publish them in your "funny column" they might find someone else who would enjoy them.

GEO. D. KENNEDY.

Mandarin, Fla.

Dr i am git along nice so i thought i send Back and git the bottler fill again and a noringht box of save the same dune me all the good But I think a noringht box will set me all Right I bin have the pilels all off my life But not study it go off sum time But I am Better

Dr I like for you to send me something for the pilel it worry me when I go to have a pasing it come out and hurt me so and i have that Bair Down pain in my frunt pasing some time yet

Dr Canada

Dear Sir as I have had you recommended to me as a good Dr by Mrs R— I have decided to write to you and explain my condition to you & get you to send me some medicine as she says you can cure me I have tried several Dr. & have taken all kinds of medicine and none has seemed to help me but very little & I want you to do all you can for me I will explain my condition to you as best I can I am in a bad fix and want something done at once for me I have missed four months I guess I am in the family way so I will tell you as to keep you from giving any medicine that will hurt me I have a bad weak feeling & my blood will not circulate & my hands & feet are cold & swear a cold sticky sweat & my heart will beat so fast I cant speak are get my breath & my hands will draw & every nerve in me will draw & I am so nervious I can hardly be still at times & my head is in an awful fix my

brains is wrong I feel like I am addled in my head all the time my mind is not on one thing at a time five minutes my ears will stop up & I can hardly get my breath then and nothing I eat agrees with me I have indigestion gas around my heart pain around my heart & under my left shoulder blade & in the fork of my breast these pains are most all the time now here comes the worst my womb presses down & it is all out of fix I want you to send me a wash for it & something that will heal it up and bring it to its place the left side of it is eat in to are perished away I done no what has caused it and it is just like a road leading off from a hill on one side and nothing seems to be there on that side a space about as big as your finger the rest of the mouth is round except there and it is out like a sink please send me something for it I got whites I guess a yellowish & white corruption looking stuff will pass gradually I have neuraligia all time send me med & your price & I will send your money by return mail I want you to give me med to build me up all over and to work on my stomach as I have stomach trouble to be sure to give something for the blood & brains be as light as you can I am a poor woman I beg to be your friend.

Can any of our readers beat these? Who can submit something more unique?

DISPENSES HIS OWN DRUGS, PRINCIPALLY THE ACTIVE PRINCIPLES

After twenty-five years of practice and silence in the grind of medicine, I want to say that I have never been overenthused, but rather slow to be convinced.

I have carried a 26-bottle pocket-case filled mostly with alkaloidal granules for over twenty years. Why?

I noticed, recently, that five tons of olive pits were imported into New York port. Uncle Sam struck the trail and reports that the analysis of powdered drugs from one firm in New York showed from 30 percent to 40 percent of ground olive pits. Is it to be wondered at that fluid extracts and tinctures should vary in strength?

To illustrate: Aconitine, 1-134 grain, a definite amount of the alkaloid, is a unit of measure, like a yardstick, and does not contain cheap adulteration. From this I have never failed to get the physiologic effect of aconite. When I want any assistance from aconite, I use the granules, and have done so for twenty years. I have not prescribed a drop of fluid extract of aconite or of the tincture during this time.

What is true of aconitine is equally true of a large list of the other active principles.

We are today confronted with one of the most trying and important crises in the history of medicine. Imitation, substitution, dishonesty and graft seem to be the watchword of many (happily, not all), from the oldest and largest drug firms down to the smallest. Yet, on the whole, the world has advanced and grown better and stronger.

The doctor pushed the pepsin fad, predigested foods, coaltar derivatives, breakfast foods, muds, and many other things. Then the fakers followed and reaped the harvest.

My plan has always been to keep and dispense all my own medicines. I never tell a patient what medicine is given. I keep a record of my cases on cards. Buy and dispense pure drugs. Never give a bad pill. If I give medicine, it is for some definite purpose. By following this plan, if my patients are benefited, they come back, or if they are not benefited, I know it and can then look up some of my own weak imperfections.

In these strenuous times, when the doctor has a large army of medicine venders, the newspapers, and prescribing druggists to contend with, we must show our independence; ask no questions and answer none; keep and prescribe our own medicine; trust to purity of drugs; utilize everything that is proven to be safe, sound and sane; and keep our own house in order. It would be a great step in advance if the government would expose these fraudulent firms by publishing their names.

ROZEL M. CURTISS.

Marengo, Ill.

THE DOCTOR'S DREAM

Illustrating the spirit of the true friend of man.

Dr. Sophia Brunson, St. Mathews, South Carolina, says: "Please print this poem with a note of explanation, stating that the last five stanzas only are mine. I thought that the first version was unworthy of our noble profession, even though it was only meant for a little bit of pleasantry."

Last evening I was talking
With a doctor, aged and gray,
Who told me of a dream he had—
I think 'twas Christmas day.

While snoozing in his office
A vision came to view;
He saw an angel enter
Dressed in garments white and new.

Said the angel, "I'm from heaven;
The Lord just sent me down
To bring you up to glory,
And put on your golden crown.

"You 've been a friend to every one,
And worked hard night and day;
You have doctored many thousands,
And from few received your pay.

"So we want you up in glory,
For you have labored hard,
And the good Lord is preparing
Your eternal, just reward."

Then the angel and the doctor
Started up toward glory's gate,
But when passing close to hades
The angel murmured: "Wait,

"I've got a place to show you;
It's the hottest place in hell,
Where the ones who never paid you
In torment always dwell."

And, lo, the doctor there beheld
Old patients by the score.
But when he saw familiar forms
Of those he'd known before

Amid the sad and suffering throng,
And heard their moans and cries,
He could no further go; and tears
Unbidden filled his eyes.

At once he felt a strong impulse
To go to their relief;
For doctors find their greatest joy
In 'suaging pain and grief.

So turning to his angel guide
He said: "You go alone
And join the happy hosts who sing
Around the Great White Throne.

"I'll stay and aid these helpless souls
As strength to me is given;
I'd rather do good deeds in hell
Than wear a crown in heaven."

MOSQUITOES

In the last two issues of CLINICAL MEDICINE we have some items (both complimentary and otherwise) regarding the fly. As an evidence that we do not show undue favoritism, we print herewith a tribute to the mosquito, contributed by Mr. P. Chalmers Mitchell, F. R. S., to *The London Saturday Review*. He says:

"I like mosquitoes; they do not creep or run, swarm into food or drink or pour down from the lamp in writhing disablement, but go about their bloodthirsty business with the clean grace and lively intelligence of a carnivorous, predatory animal. It gives me no horror to be attacked by mosquitoes; they have their annual tribute from me as part of the holiday routine. Some thymol pounded in vaseline for the face and ankles, a little hole scraped with a needle in the white center of a smarting bite and filled with a grain or two of wet table-salt; these are my simple and satisfactory remedies. Confident in them, I find the silvery trumpets in the room blend in a drowsy harmony with the louder singing of the grasshoppers that shrills through the open window. For me mosquitoes are part of the warm South, and I have no heart in the matter of their destruction."

We wish that Mr. Mitchell might "resort" with us some summer, near some of our stagnant streams and quiet lakes, and have an opportunity to commune with a few millions of the real American mosquito with unappeased tourist appetites, so that he might experience the acme of ecstasy of his culexian elysium.

THAT BOOK ABOUT "BIG FEES"

Any physician who has been induced to buy a book published by one Jackman on the strength of my alleged connection with the book, will confer a favor by communicating with me.

G. FRANK LYDSTON.

Chicago, Ill.

A FEW WORDS ABOUT PNEUMONIA

A number of years ago I came to the conclusion that it was rarely necessary to lose a pneumonia patient; yet, reports from hospitals and physicians throughout the country—including our large cities, the centers of teaching and schools of medicine—continue giving us a high mortality-rate, a rate little less than murderous. Many of these professors and authors to whom we, and especially the younger members of our profession, look for guidance, tell us that pneumonia is a self-limited disease, and that medicine is of but little or no use. "Keep up the strength of the victim: feed, stuff, and give digitalis." That is their litany. As to medicine, they have no faith in its efficacy. Then why do these men pretend to practise medicine, and why, indeed, do they set themselves up as teachers? It is nothing less than humbuggery. Is it that they are too lazy or are incom-

petent to learn the lesson taught by experience?

The results of proper medication in the various forms of disease are no less sure, no less readily observed by the competent physician, and no less brilliant than are those of a surgical operation—and not every case of bellyache requires a surgical operation; in fact, if surgeons were better physicians and believed in medicine, there would be fewer operations at McBurney's point. The majority of cases of appendicitis will recover under proper medical treatment, thus saving the victim a big fee for a little cutting.

But now as to pneumonia. As students, it is very well to learn all about the history, course, pathology, and other details of the disease. But at the bedside, it is not necessary to count, with watch in hand, the pulse, heart-beats and respirations, take the temperature, make chemical and microscopic examinations of urine and feces, count the red and white corpuscles and the bacteria, and classify them and all that rigmarole, only finally to hold a post-mortem to prove the diagnosis, or, as many surgeons do, to cut the patient open, to establish a diagnosis. This is the study, it is not the practice of medicine. What the patient wants is relief and to get well; and the doctor can and should help him. I shall not go into details, but wish simply to call attention to a few points of importance.

When called to a case of pneumonia, take along a little knowledge of medicine and a whole lot of common sense; and use both. Start in to clear and clean out the bowels thoroughly; further, shut off *all* food and drink for thirty-six, forty-eight or seventy-two hours, as may be found necessary. And why? Not necessarily to get rid of the "bugs," but of filth generally, and to unload the whole system, to deplete and drain (outward) the vessels and tissues of their aqueous constituent. The lungs are engorged with blood, congested, perhaps inflamed; vessels are distended, and fluid is exuding, pouring out into and filling up the air-cells and lung-tissue, thereby shutting out the air; the blood is not properly oxygenated, and the heart is having a hard time of it pumping the blood through this blockaded territory; there is a tendency toward this center of low pressure—as is always the case, and as we see in weather conditions, there is always a pressure from surrounding atmospheric areas toward the low barometer area.

Now, by purgatives and sudorifics, the vessels and tissues have been depleted and are thirsting and crying out for water; but as none has been taken in, the only place to draw upon is the lungs, which have an oversupply. So the absorbents go to work, suck up this surplus of fluid, and soon the current is in the other direction, i. e., away from the lungs—congestion is relieved and the lungs begin to clear. Dry cups may also be set freely over the lungs, and they will draw the blood away, relieving the congestion and pain better and quicker than anything else.

Finally as to drugs. Veratrum viride is *the* remedy, either alone or in conjunction with gelsemium, given every half hour till the patient is breathing easy, feels comfortable, and is perspiring. Thereafter, less often, every second, third, or fourth hour, till the doctor is in control, instead of the disease. How veratrum acts, I need not discuss—it does the work.

Other drugs may be required as the case progresses. The heart, for instance, may need a little help from strychnine, cactus, glonoin, strophanthus or digitalis, separate or in combination. But the main thing is veratrum, withholding food and drink, to purge, sweat, deplete, and perhaps dry-cup; and all this thoroughly mixed and combined with common sense; and, in addition, in a full-blooded, bull-necked brute, bleed. And you will have mighty few opportunities for an autopsy.

Now, this is all as simple as the letter H; yet how many go on dosing with big bottles of conglomerations, when all the medicine needed can be put in the vest-pocket. Then they feed, and stuff, and stimulate, and water the patient till—is it any wonder—the patient is drowned or his heart and lungs are balled up like an automobile stuck in the mud?

M. E. Woodling.

Las Vegas, N. M.

[Dr. Woodling has found that by relaxing the spastic vessels the fluids run out of the congested area into the dilating recipients. True, and he does good work thereby. Others give remedies to contract the paretic vessels in the lung and force out the surplus blood engorging them. True, and they do good work thereby. Burggraeve found we could do both at once and do better than either separated, reconciling apparently antagonistic observations.—Ed.]

INGROWN TOE-NAIL

I have read with interest Doctor Breakstone's article on "Ingrown Toe-Nails" in the September issue of Clinical Medicine.

There is no doubt removal of the nail, if the job be thoroughly done, will be found a corrective expedient; so also would amputation of the toe! But why mutilate? It seems to me that to disfigure even the large toe unnecessarily is criminal. Ingrown nail is so easily corrected there is no excuse for surgical interference. It is only necessary to scrape the surface of the nail occasionally with a pocket-knife or piece of glass, and as long as the nail is kept thinner than normal there will be no further growth of the nail's edge down into the toe, and the soreness will soon disappear. This treatment is so simple and efficacious there would be no need for surgical interference if the knowledge of it were general.

E. S. Frazier.

Aurora, Ill.

SPONTANEOUS VERSION OF FETUS. OBSTINATE SINGULTUS

Having read Dr. Chas. F. Morrison's case of obstetrics in the Philippines, it calls to memory a case I had a year or more ago that I am sure was an instance of voluntary version. I was called to see Mrs. M. in the early part of the night and found her in labor with her sixth child. I cleaned up my hands thoroughly and examined to see what progress she had made, as she claimed she had been in labor several hours. I had attended this lady in a number of labors previously and she was always excessively nervous. I always had to give her an anesthetic to keep her under control at all. She possesses one of the most neurotic temperaments I have ever met. I have often seen her get delirious and go all to pieces from any kind of pain, as colic, for instance, to which she is subject.

When I introduced my hand, or rather finger, on this occasion, she began to jerk and throw herself about in the bed, and I knew I was up against it. I completed the examination by the assistance of her husband and others, finding to my dismay a breech presentation. I am sure it was no mistake, for I could outline the arms and the lower spine, and all the diagnostic marks of the buttock. Not only this, but I could outline the head in the upper part of the abdomen, so I am sure of my position.

As the os was only partially dilated and the woman excessively nervous, I decided to give her a dose of H-M-C to insure some rest, and thereby get some myself. She soon was quiet, and I lay down for a couple of hours, with the instruction, if active labor came on, to waken me.

In about four hours I was called, and dressing hurriedly, went in prepared to deal finally with that breech presentation. To my delight, when I introduced my finger, I discovered the approaching head with the os fully dilated. Now, I hear some of the brethren exclaim, "Just mistaken." I am as sure as I am living that it was a breech presentation at first and a spontaneous version under the influence of H-M-C. The uterus being fully dilated, I ruptured the membranes, and it was not long till I had the child delivered, though I had some difficulty to save it, as the cord was twice around its neck.

Here is another case that may be of interest to some of the readers of Clinical Medicine.

I was called one night a short while ago to come as quickly as possible to meet Dr. N. at Mr. R.'s in consultation. I found Dr. N. absent, Mr. R. stating he had called him over the 'phone but he was out and he could not get him. The family insisted that I must do something for the mother or she would die. She had been sick for two weeks with what the other doctor

called diarrhea, had had hiccough for two days and nights and could not get it stopped. The woman was very ill and weak, but I concluded I was going to try H-M-C to jugulate the woman's singultus. So I gave her a half tablet of No. 1, and in a half hour she was asleep and her hiccough subsided. This was about midnight, and the family begged me to lie down and remain till morning, so if the patient grew worse they would have some one near , and in the meantime they might get Dr. N. for the consultation. This I agreed to do. About 3 a. m. the nurse woke me and said Mrs. R. was hiccoughing again. I dressed and went in to see her, but saw it was very mild, and while I was looking at her it ceased and never returned.

Again, as to H-M-C and hiccough: Two or three years ago I attended Mrs. H., a primipara, in a difficult labor of a posterior position. I could not get the head to rotate to the front, so I had a posterior forceps case. The lady did nicely for several days and never had any fever. Six or seven days after the labor I ordered the nurse to give her a mild purgative, and when the bowels moved there was a sharp pain somewhere in the abdomen. After this the lady had a complete suppression of urine. There was absolutely no secretion for days. I told the husband of the seriousness of the new development, and asked him whether he desired a consultation. He called two men whose work was along the line of the genitourinary apparatus. They were not able to suggest anything of material benefit.

I fought the case out for a week or so, and finally saw the secretion gradually reasserting itself, but a new complication set in and that was hiccough. I was unable to get this suppressed and another physician was called. We went over the case thoroughly from beginning to end, and he had nothing to suggest but a full dose of H-M-C for the hiccough. He referred me to a case in which it had acted like a charm, one dose relieving the patient of the distressing symptoms, as in the case related above. I was afraid to give it because elimination was the prime indication in the case, and I feared it would undo what we had gained. He did not think it would have that effect, and having had a larger experience than myself, I concluded to be guided by his advice and gave the lady a full dose of H-M-C. She of course went off to sleep and the hiccough stopped while under the influence of it.

After several hours the woman came out from under the influence of the hypnotic, and the singultus returned, with perhaps greater force than ever. The secretion of urine now was less, the bowels were locked up, and the skin dry, so that even the hot-air apparatus would not bring about diaphoresis. The patient gradually sank and died in a comatose condition from uremic poisoning.

This is the only evil effect I have ever seen from the administration of H-M-C, and I have used it in very many cases, except it will at times inhibit the uterine action when given in too large doses.

Now, Mr. Editor, I beg you to excuse this long letter, but I thought it might be interesting as well as somewhat helpful to the brethren to read the report of these two cases. But I shall never give another dose of H-M-C when elimination is suppressed. What has been the experience of the readers?

I am using all the active principles I can in my practice, for by them I can tell what I am doing and may expect or look for results.

G. A. Ramsauer.

China Grove, N. C.

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[In that emergency I should surely withhold the morphine, and should improve the defective renal action by pilocarpine and cold concentrated saline enemas, giving the kidneys time for restoration. Singultus was here a toxemic symptom.—Ed.]

VACCINES FOR THE PREVENTION OF TYPHOID FEVER

I have not seen anything in your journal concerning the use of serum in the prevention and cure of typhoid fever. I am depending entirely upon The American Journal of Clinical Medicine to keep me informed up to date, and I do not feel right

"up to the minute" without a thorough knowledge of this remedy, about which much is being said in the newspapers at present.

W. S.

——, Nebraska.

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[We are thankful to the doctor for reminding us of this "sin of omission." CLINICAL MEDICINE exists for the purpose of helping the doctor in every helpable way. If there is any point upon which we can throw light, which will be of service to any of our brethren, we only need to be asked, and we will do our very best.

First, we want to clear up the terminology. The remedy used for preventing typhoid fever is not a *serum*, but a bacterial *vaccine* or *bacterin*. Here is the distinction:

A *serum* (i. e., a remedial or curative serum, to be used against a specific disease) consists of the blood-serum of some animal which has previously been injected with a microorganism or its products, with the purpose of producing within that animal certain protective substances, called antibodies, which presumably will be present in the remedial serum, and specific for the corresponding germ-disease, when injected into the body of another individual. A typical example is diphtheria antitoxin. A horse is injected with dead diphtheria bacilli; after the proper time, the blood of that horse, now charged with the remedial antibodies, is withdrawn from the animal's jugular vein, the serum is separated and bottled, and used in the treatment of diphtheria.

A *vaccine*, on the contrary (more properly called *bacterin*, to distinguish it from smallpox vaccine), consists of the dead germs themselves, which are cultivated outside of the body and diluted in suitable media. These are introduced directly into the body of the individual suffering from or threatened with the disease for which those germs are specific. In this case, the patient *manufactures his own* protective substances (antibodies); or, to put it very plainly, when the vaccine is used to prevent disease, he creates his own immunity by producing artificially what is usually an exceedingly mild attack of that disease, using dead germs instead of the living organisms to produce it.

The immunity produced by the remedial serum is sometimes called *passive immunity*; that by the vaccine, *active immunity*.

The nature of these antibodies, or protective substances, is often complex, and to describe them would make a "story" all by itself. But in the case of the bacterial vaccine, it is sufficient to state here that they consist largely of opsonins, those mysterious substances described by Wright (and earlier, under the name of alexins, by Buchner), which in some way act upon the living germs in the body and prepare them for destruction by the phagocytes. While "vaccine therapy" and "opsonin therapy" are not interchangeable terms, they are closely allied. It is significant that Wright, who introduced the vaccine treatment for the prevention of typhoid fever among the British soldiers in South Africa during the Boer War, in 1898, a few years later submitted his opsonin theory, which met with immediate favor.

With this introduction, we think we have made it clear that the typhoid-fever vaccine consists of a suspension of the dead typhoid bacilli. In the United States Army, three doses of the vaccine are given at ten-day intervals; the first containing 500 million germs, the second and third, 1000 million each. Following the injection, there is some headache and malaise, and considerable local inflammatory reaction, all the symptoms passing off in forty-eight hours.

Thus far the typhoid vaccine has been given mainly for purposes of prevention. Thus, in the United States Army, up to June, 1908, 5473 soldiers were vaccinated against typhoid fever and only 21 took the disease, 2 dying. Among over 6000 soldiers under similar conditions who were unvaccinated, there were 187 cases and 26 deaths. One of the most brilliant demonstrations of its value was during the recent army maneuvers in Texas. As we all know, typhoid fever develops very readily in camp-life, yet in Texas, two months after the mobilization of the troops, not one case of typhoid fever had developed among the vaccinated troops. This summer this method of treatment has been

introduced at the annual encampments of several of the state National Guards.

The vaccine treatment of typhoid fever has been used almost exclusively to prevent the disease; as a cure it has found litt'e favor, most authorities warning against its use after fever or other signs of illness have appeared. Calliston, writing in *The Medical Record*, however, quotes a considerable series of cases of the disease treated with the vaccine, with alleged good results.

The typhoid vaccine has, apparently a rather restricted field. It is an exceedingly valuable remedy for soldiers in the fie'd, necessarily exposed to danger of infection. It should also be of value in communities in the throes of a beginning epidemic of typhoid fever, or in large public or charitable institutions where such danger is present; but in private practice, under most circumstances, either for prevention or cure, there are other and better agencies.—Ed.]

WHEN THE GOOSE HONKS HIGH

By Homer Clark Bennett, M. D., Lima, Ohio.

When the earth is wet and muddy, and a chill is in the air,
And the weather seems determined to make trouble everywhere,
Then at night if you will listen, late in fall or early spring,
You can hear the stealthy rustle of the migratory wing
Of the wild goose in his passage to and from his breeding ground,
As he flies low in the darkness, giving forth no throaty sound,
For his instinct gives him caution to keep silent in his flight
And to go his way in safety under cover of the night.

When the earth is dry and dusty, and the air is warm and still,
And the weather-man is resting from his work with right good will,
Then at noon, as you look upward, you may strain your eyes and see
Two long lines of fluttering pinions, spreading out in a great "V".
If you hold your breath and listen, you may catch the distant sound
Of the honking of the wild goose on his journey, homeward bound—
Swiftly moving 'cross the azure of a clear and cloudless sky;
For when everything is lovely, then it is the goose honks high.

This old adage is a true one, which we all may put to use,
That two heads than one are wiser, even tho one is a goose.
God made geese and God made people; let us learn the lesson then:
To the geese he gave an instinct, He gave reason unto men.
But how many men are foolish and neglect the higher theme,
Keeping on the lower levels, where things are not what they seem,
When they fail in their endeavor, rail at fate and call it luck,
Never reason out their actions, take no thought of grit or pluck.

When our days are dark and gloomy, and things seem to go all wrong,
All the good things going elsewhere, naught but discord in our song,
Then's the time for us to reason that the cloud which hides the light
Has a silver lining somewhere, and the other side is bright,
And there surely is a method by the which we may pull through,
If we only will have patience and do as the wild geese do.
Then when all our fret is over, we can smile and not half try,
For when everything is lovely, then it is the goose honks high.

This old world is full of trouble, let us meet it with a smile,
Troubles do not last forever, and it is not worth our while
To worry over hardships and obstructions in our way,
For we somehow can surmount them. And remember that some day,
When we reach the higher levels, we shall smile and wonder how
We ever let the molehills seem like mountains, and that now,
When our troubles are forgotten, that is just the reason why,
That when everything is lovely, then it is the goose honks high.

SOME DISPENSING PROBLEMS

The writer has persistently taken the stand that the physician does not charge for dispensing drugs or writing a prescription which may be the result of endless research, for the continued use of the patient or his friends, for the nominal sum, in most instances, of fifty cents. On the contrary, he charges for professional services rendered, due to the knowledge which he possesses along medical lines which may have cost him hundreds of dollars and years of time.

This brings us to the point that I wish to call to your attention, and which has been

one of much dispute and expensive litigation. The writer has always maintained that the patient did not own the prescription, as has been held by the courts, but that he simply became the messenger for the physician to the druggist; that the physician could not write a prescription to apply to any other condition than the one then present; and that it was his mission to relieve that particular ailment for which he received his fee and not for the prescription.

Example: A person writes a check for the payment of an obligation. (The check is not money, but an order for it.) The receiver of the check becomes the messenger between the giver and the bank; the bank cashes the check, retains it, places it on file, makes a note of the transaction upon the books, and returns the check to the giver upon demand. Thus the transaction is closed.

The same thing takes place between the doctor, the patient, and the druggist. The banker does not duplicate the payment or give a copy, then why should the druggist? Every time he does so, I believe a forgery is committed, unless the doctor orders it done.

OFFICE HOURS:
Until 10 A. M.
At 1 P. M.
At 6:30 P. M.
Sunday by Appointment

PROPERTY OF
C. J. MASSINGER, M. D.
PHYSICIAN AND SURGEON
(BELL TELEPHONE) COLLINGSWOOD, NEW JERSEY

No..... Date.....

℞ The Druggist will please prepare for.....

The above is for this particular illness only. Do not refill or give copy unless directed. File for reference.

..... M. D.

However, due to the great difference of opinions, the writer some years ago devised the enclosed form of prescription blank and submitted the same to a court justice of one of our highest courts for an opinion as to its legality and as to whether it overcame the various objections. The answer was in the affirmative.

Here, then, is a practical solution of this problem; it meets every legal requirement; there can be no question as to the physician's intentions, and it settles the question of ownership.

I frequently ask the patient who his druggist is, place the prescription in an envelope, seal it, and write the druggist's name on it.

THE CLINIC is publishing a great many new helpful things; it is branching out into broader fields.

C. J. MASSINGER.

Collingswood, N. J.

PRECOCIOUS PARENTAGE

Under the above heading CLINICAL MEDICINE for January, on page 102, referred to two cases of early pregnancy, one in a negro girl, nine years and twenty-four days, and one quoted after *The Lancet*, in a Chinese girl of seven. In an editorial note in CLINICAL MEDICINE for June, 1910, page 678, there appeared a reference to a case of pregnancy, also in a colored child, nine years and twenty-four days old, which had been reported in CLINICAL MEDICINE for June, 1908, on page 708.

In delving among old files of *The British Medical Journal*, I came across an even more remarkable case because occurring in a Caucasian, which was first related in *The York Herald* (England) for October 19, 1881, and was reported to *The British Medical Journal*, 1904, Vol. 2, page 52. According to this account, a child eight years of age, living in Rillington, Yorkshire, England, was found pregnant in 1880 and was delivered of a male child in March, 1881. This is certainly a unique case for early pregnancy in a Caucasian, and still more especially in an Anglo-Saxon, and has, with one possible exception, never been equaled so far as I am aware.

It may be of interest to review the cases which have been collected by Kisch ("Geschlechtsleben des Weibes," Berlin und Wien, 1911), whose book has recently appeared in an English translation. Kisch mentions the case reported by Molitor, delivery of a nine-year-old girl of a mole with embryo; the case of von Haller, pregnancy

in the ninth year of life; *the case of Carus, pregnancy in a girl eight years old.* Casper has seen a girl in Berlin who had conceived when just twelve years old, and was delivered of a living child. Ruettel saw a nine-year-old pregnant girl. King delivered a girl who had not completed her eleventh year. Taylor reports the case of a girl twelve years and six months old whom he observed in the last month of pregnancy, and Koblanck reports that a fourteen-year-old girl was delivered of a child 4 1-2 pounds in weight.

Except for the case of Carus, it appears, then, that the one which I have cited from *The British Medical Journal* is the most precocious one on record.

H. J. Achard.

Chicago, Ill.

ALBUMINURIA IN ASEPTIC FEVER

Salvator Lavagna (*Gazz. degli Osped.*, 1909, p. 441; through *Wien. Med. Woch.*, 1910, col. 770) has found that, in rabbits, an artificial increase of temperature, induced by injections of physiologic salt solution, did not produce albuminuria, but that this appeared at once when the temperature rise was due to injections of toxins. We cannot, therefore, speak of a socalled febrile albuminuria as a consequence of a simple temperature rise, but must assume that the elimination of albumen by the kidneys is always due to toxins which circulate in the blood and interfere with the renal circulation.

PLACENTA PRAEVIA.—POSTPARTUM DOUCHING

I read with great interest Dr. Ogilvie's account of his failure in a case of placenta prævia, in the January number, because I experienced just such a misadventure about twenty-four years ago, and the memory—by no means a pleasant one—lingers with me still.

Soon after that occurrence I read, in *The Medical Age*, an article strongly recommending grasping the uterus bodily, compressing it and exerting downward pressure at the same time. This makes a pretty effectual clamp, by compressing the lower part of the uterus, and incidentally the placenta, between the child's head and the pelvic bones. I have followed this method ever since with uniform success, and have had a good many cases both of complete and partial placenta prævia at that.

Keeping up this compression during a protracted labor is no joke, but I never let up for an instant. When my strength gives out, I instruct some assistant to take my place for a while. Meantime I give strychnine, glonoin and atropine to hurry up the labor-pains and to assist in controlling hemorrhage, although the latter has ceased to have any terrors for me.

While on this theme I wish to enter a protest against the prevailing fad of vaginal douching from the time of delivery for an indefinite period. It is both senseless and injurious. For God's sake and the woman's let nature alone, and let her have all abrasions bathed in the soothing, healing lochial flow.

I have not had in my practice a case of puerperal infection in twenty years. Infection invariably comes from without and not from within. I simply bar the door by attending to the vulval toilet, and keeping over it a pad thoroughly saturated with a reliable antiseptic.

G. A. Pratt.

Munday, Tex.

SOME USES OF SOLANUM CAROLINENSE, OR BULL-NETTLE

If there is any one thing that will cure syphilis, it is an infusion of solanum carolinense. Make a decoction of the entire plant, dried. Of this, let the patient drink a wineglassful three or four times a day, until the bowels are loose or move three or four times a day in a liquid form; then let him take a sufficient amount of it to produce a liquid movement each day.

Case 1. A young man came to me with an ulcer in the roof of the mouth, as large as a half-dollar coin, two large ulcers on the back, and one on the ulnar surface of the right limb. I gave him a decoction made by boiling the dried plant, berries included, for four hours, and secured complete catharsis in three days, and kept him thoroughly

cleaned out for ten days, when the ulcers began to disappear rapidly. Then I lessened the dose for the next ten days, when the patient was completely cured, so far as he could see. Now I put him on 5-grain doses of calcium sulphide, three times a day, for ten days. After that I put him through exactly the same course for ten days more, and discharged him. Have not treated him since. It is nearly two years since then, and no signs of return are noticeable.

Case 2. A young man, aged 22 years, came to be treated for enlarged glands and sore throat. The mouth was filled with small gummata, and he could hardly eat anything that contained salt or sour things. Had no appetite, was emaciated, dull, lethargic, cared for no one and nothing; had about given up all hope and was in misery. He had a large chancre on the glans which was said to have been there six weeks.

The patient had been using mercury for a week, but did not seem to improve. So I put him on a course of the decoction of bull-nettle prepared as above, directing him to take a wineglassful every hour until his bowels moved six times a day. Then I had him use less of the material for a week, but made sure that his bowels moved three or four times a day. I used nothing else excepting some papoid for the stomach, as the medicine seemed to nauseate him and I feared that he would develop a condition that would not retain the medicine on the stomach. After one week's treatment he went back to work, but continued to take his medicine for ninety days four times a day, when I put him on calcium sulphide, 5-grains three times a day, continued for one month. He has not taken any medicine (except for the gonorrhea) since, and that has been a little more than one year.

Case 3. A woman, who gave a history of having had syphilis two years before, complained of suffering from a rheumatic condition for several weeks. An old ulcer was found on the tibia, which was diagnosed as a varicose ulcer, although there was no sign of any varicose veins. The sore had been exuding a semiserous fluid for the past two years. She was also suffering from a severe tonsillitis which medicine did not seem to relieve.

I put the woman on the bull-nettle treatment, kept her fully under its influence for four weeks, then put her on the calcium-sulphide treatment, 30 grains a day for four weeks, and after that on a tonic treatment consisting of 1-30 grain of strychnine and arsenic. She now is well and has been so for more than six months past, and has had no sign of her rheumatism. The reason I put her on the large dosage of calcium sulphide was that I suspected she had at some time had a case of gonorrhea, and there is nothing that will so quickly relieve rheumatism of this type as the sulphides in large doses.

Case 4. A child that was rachitic from parents who were syphilitic. The child seemed emaciated, did not grow nor developed as it should, was then three years old, weighed only 14 pounds, was pale, anemic, dull, and did not seem even bright. I put the child on 2-dram doses of the solanum-carolinense decoction, and in four months it had much improved, and gained 4 pounds, while at the end of one year's treatment it was completely cured. It has shown no signs of the disease since then. The child cut its teeth during the year, and it is now growing as fast as any ordinary child.

I may say here that the alcoholic tincture from this plant does not give results. Glycerin as a preservative will do, but no tinctures will ever do the work as a decoction from the green plant. As in the case of the baby above it was summer time and this plant grows in all the Mississippi Valley states—ofttimes becoming a nuisance to the farmer—I had the drug in its best condition.

This plant is so common everywhere that it seems almost useless for me to go into detail in describing its place of growth and how one could recognize it. Still, there may be some brother who has not been so fortunate as to have in his youth traveled over farms and had the "pleasure" of sitting down and pulling the sharp stickers out of his bare feet; or who has not been running out of some watermelon-patch,

with an irate farmer chasing him, and hauled up in some low-lying spot—where the soil is richer than on the knoll—and struck his bare legs against one of these joyous plants, then jumped as far as he could, only to alight in another bunch, tearing his tender skin so that the blood oozed out and the dust stuck to the places; so I am going to tell how you can know this same plant and not mistake it.

Solanum carolinense (bull-nettle, horse-nettle, treat-nettle) is common wherever the ground has been cultivated; you will generally find it growing among corn and oat stubbles. It blooms about the first of July (varying with latitude) and afterward, the bloom is white and star-shaped with a yellow center. The leaves are smooth on top, but covered with a slight fuzz, while the underside is very thorny along the midrib and other ribs, the pricks varying from a fine fuzz to a prickle one-half inch long in extreme instances of rank growth. It is the only plant that grows in cultivated grounds having the thorns or prickles on the leaf and stem. It bears a berry like the potato-ball and about the same size of that, but differs from it in having a small streak of a deeper or darker green, which marks the cells in the berry, or pod. The fruit ripens in August and September, and when ripe is a golden-yellow, It is found on a distinct stem, and sometimes the berries cluster about a common starting point.

The plant varies in height, according to the ground where found, from 2 to 18 inches, and in rare cases may reach the extreme height of 2 feet.

This plant is said to be poisonous, but I have failed to find any bad results from its use, even when used to excess.

T. C. Buxton.

Decatur, Ill.

—

[Doctor, don't forget the alkaloid—solanine. We need reports on this remedy. Who can give them?—Ed.[

NATIVE MEDICAL PRACTICE IN KOREA

Since locating in Korea, I have kept my eyes and ears open for facts regarding native medical practice, but, unfortunately, have not been able to learn very much. I think I spoke, in a previous letter, of what they call here *doom* and *chim*, I may tell more of them in this letter, as well as of some experiences.

The former, "doom," is a small heap of powdered herb resembling sage which is put upon a diseased part and ignited, the smoldering moxa leaving a slow-healing ulcerating sore and eventually a round, white scar. Infantile convulsions are treated by building such a bonfire over the anterior fontanelle.

It is, as you see, a crude method of counterirritation, and the fact that it is so universally practised, at least in northern Korea, seems to indicate that benefit has at least appeared to follow from it. I have a patient in the hospital now who, for some pain in his chest, had such an application four hundred times on two or three spots. Blemishes of accidental or congenital origin are a source of much annoyance to Koreans, but a *doom jare* (scar from this burning) is worn with apparent pride even though it be in the middle of the forehead.

The *chims* are rather blunt needles of various sizes, from the thickness of a darning needle to that of an eightpenny nail, which are thrust into the body with amazing carelessness. The points of application, however, are well defined, as also the depth to which they may penetrate in each particular spot. In order to use the instrument, the physician must be familiar with the teachings of the Chinese doctors, who long ago mapped out on a bronze image very accurately the points where a "chim" may be applied with advantage. For instance, it may enter the knee-joint to a depth of an inch and a half or two inches, but not so deep at the ankle.

I once asked a Korean doctor, with whom I had become quite friendly and who, with considerable ostentation had begun dispensing foreign drugs (of which he knew nothing), whether he did not know that it was not only useless but dangerous to thrust those unclean needles into the body in that manner. His reply was: "Yes, I know it, but a Korean doctor who doesn't use *chims* can get no practice."

Public opinion the world over seems to have a powerful influence on medical practice.

I have a patient now in the hospital now nearly ready for dismissal, who was afflicted with one of the largest abscesses I have ever seen. It extended from the crest of the ilium half-way down to the knee, and underlying the fascia lata and requiring four incisions to evacuate it thoroughly. At first I feared it was hip-joint disease, but the developments have convinced me that it is the result of the application of a *chim*, early in the case, to relieve muscular pain at that point. The man came on a stretcher, but now walks without much trouble, and nothing but emptying and cleaning of the abscess was done for him. So much for the "doom" and "chim."

Fistula in ano is a very common ailment here. The natives do not treat this, so far as I know, at least I have not seen a case where they have actively interfered. Our hospital treatment is simple. If the man thinks he can stand it, we simply follow the sinus with a probe until it enters the rectum, then follow the probe with a grooved director, bringing the point outside of the anus. The included tissue is then divided with a bistoury, the tract curetted, then packed with iodoform gauze. We get good results in nearly one hundred percent of the cases. Of course, if the patients wish it, we give a general anesthetic, in which case some preparatory measures are necessary—cathartics and enemata. [Doctor, these are just the cases in which you should use hyoscine-morphine.—Ed.]

Syphilis is well-nigh universal, and the use of mercury and potassium iodide are well known, but their application is not as well understood. Mercury usually is given by inhalation of the fumes of quicksilver heated over a charcoal brazier. Potassium iodide, I think, has been introduced from Japan, and Koreans are quite well aware of its efficiency. They are also indebted to Japan for another remedy, but which has not benefited them so much, and this is morphine.

Some few years ago the smoking of opium was introduced by the Chinese into most of the large cities. However, the use of the pipe was not satisfactory for long and very many began the use of morphine hypodermically. The morphine as well as the hypodermic syringe come mostly from Japan, if I mistake not. The government is taking some measures for the suppresion of the vice, but as yet, I think, the importation has not been forbidden or restricted. The campaign is mostly against the poor victims of the habit rather than against the vendors of the drug.

Of late I have been having considerable experience in the treatment of the morphine-habit, about thirty cases having passed through my hands in the last three months. They are all treated as in-patients, the treatment requiring from two to three weeks. We use the Towne method, somewhat modified to suit the case.

Our present method briefly is as follows: Give 4 to 6 drams of magnesium sulphate three times a day; 5 grains of quinine night and morning; 1-60 grain of strychnine three or four times a day, according to the patient's strength; and just enough morphine to keep him reasonably quiet for three to five days. The amount required is usually not more than 1-4 to 1-6 grain, three or four times a day.

So far, the belladonna, hyoscyamus and xanthoxylum combination has not proved satisfactory with me. It usually induces vomiting and is not sufficient to allay the pain caused by the sudden withdrawal of morphine.

My preference among the quieting combinations I have tried is for the ordinary chlorodyne formula given in tablets, liquid medicine of all sorts being more liable to induce vomiting. Thus far it has not been hard to wean the patients from the habit entirely within one full week or at most ten days.

The first four or five days the treatment is pretty rough, but at the end of that time the appetite returns, the desire for opium is decreased perceptibly with each day, and the patient begins to put on fat, often gaining surprisingly in weight. The pain mostly complained of is in the abdomen and the knees, and they often get one of their convalescing companions to pound

them with a soft mallet (a primitive method of vibration, I suppose).

Intercurrent remedies often are necessary. The majority require more or less atropine, to combat the sweating, which nearly always occurs. They all complain of indigestion, which usually is benefited by soda and rhubarb or soda and charcoal. After the habit has been overcome, indigestion very frequently, I might say usually, remains, and I have found this a beneficial medicament at this time, aiding as it does the digestive organs in taking care of the large quantities of carbohydrates of which Korean diet largely consists. Some good advice regarding proper mastication and the ingestion of reasonable quantities of food has also borne some fruit I think.

So far we have failed to cure no one who has taken the treatment. Three left the hospital at the end of a very few days for various reasons, before treatment was finished.

Although this is not a careful analysis of the cases, I think the average duration of the habit in our 30 cases may be put at five years. Nearly all victims began with the pipe, later changing to the needle; a few began with the needle, while a few others had never used it. The amount consumed (according to the patient's own testimony) ranged from an 1-8-ounce bottle every day to the same quantity every ten to fifteen days. The average would fall at about five days. The drug is purchased in 1-8-ounce bottles very much resembling the ordinary American package, and all I have seen bore a Japanese label. Whether or not the stuff is adulterated I cannot say. It would seem that it must be—fortunately for the user. A large majority began simply because they were told that it produced pleasant sensations. A few began because of various ailments, mostly cough or indigestion.

Whether or not the habit is now on the decrease I cannot say, but certain it is that it has assumed menacing proportions and will require strong repressive measures to stamp it out. The treatment of the habitués will never be sufficient. Suppression of the traffic will be necessary. Japan is in position to do this if she will. If the same stringency of administration regarding the importation of the drug is applied here as, we understand, prevails in Japan itself, that great desideratum may be completely attained.

A. H. Norton.

Haija, Korea.

EXOPHTHALMIC GOITER, AND CERVICAL LUXATIONS

Here is a "query" which is *not* "condensed." I have noticed that whenever a man tries to condense a query, the editor always asks for several pages of more information. So I am going to tell at the start what I know about the case in question, and put the matter of condensation up to the editor.

The patient in the case is a woman, first taken sick with exophthalmic goiter in the spring of 1898, when she was 24 years of age and unmarried. It seems to have been typical. Tachycardia was extreme. The highest pulse-rate recorded was 120, but often it was too feeble and fluttering to be counted. She was sick for about a year, and confined to bed for nine months, during which time there was complete amenorrhea. (One characteristic of the case I have not seen mentioned in the literature.) There is no record of any supernormal temperature, but she had the sensation of being in a high fever. During the winter of 1898–9, she lay in a room, without heat, with the windows wide open, and nothing but a sheet over her, while the nurse shivered in her furs. And yet she constantly complained of the heat.

I am unable to outline the treatment she received. In the spring of 1899, she made an incomplete recovery. When I first saw her, in consultation, three years later, there was a small hard goiter, moderate exophthalmos, and moderate tachycardia. Occasional acute exacerbations took place. On these occasions, the patient was accustomed to sleep for twenty hours out of the twenty-four, the acute attack usually passing off in from twenty-four to forty-eight hours.

The physician in charge of the case at the time thought the primary seat of the

trouble was in the spinal cord and suggested repeated blistering over the entire length of the spine. This was not tried, however. I pointed out that the thyroid receives no innervation from the cord. I also examined the cervical spine for lesions, but found none.

The only treatment instituted at this time was massage, directed mainly to sedating the cervical ganglia, with gentle petrissage of the gland and exercise of the eyeballs under light pressure. This treatment was given six times a week for two or three months. The result was a distinct improvement in the goiter and exophthalmos, the tachycardia remaining about the same.

About sixteen months later, the patient was married. In December, 1903, she applied to me for treatment for one of the above-mentioned exacerbations. This time, I found the third cervical vertebra slightly displaced to the right. I returned it to place, and all symptoms immediately subsided. The luxation returned five or six times in the next ten days, and was promptly reduced; after which it "stayed put." No other treatment whatever. Result: eyes became normal, goiter not noticeable, but palpation showed the gland slightly enlarged and indurated. The pulse ran about 70 to 80 when the patient was seated.

In November, 1904, the patient became a mother. In July, 1906, she requested treatment for fever. As there was a good deal of malaria about, I carelessly gave her quinine. When this failed to do any good, I proceeded to examine. I found no evidence of fever, except tachycardia. The temperature was persistently exactly normal both per os and per rectum; at the very time the patient insisted that she was burning up with a high fever. This condition was continuous, not intermittent or remittent. I was nonplussed for a while. The remedies I tried naturally did no good. Menstrual flow failed once, but we thought she was pregnant. The previous history of the case did not occur to me, as I regarded that goiter case definitely completed nearly two years before. Finally, I noticed that her eyes were growing more prominent. Then I examined her neck, and found the thyroid markedly enlarged and a cervical vertebra out of place.

That started the campaign. During the next two months, I reduced luxations from three to six times a week. I watched the case closely, and observed the following phenomena:

1. The first sign that a luxation had taken place was a snapping sound, in the back of the neck, audible to the patient only. I attributed this to the slipping of a tendon over a displaced spinous process.

2. With this there soon developed characteristic mental symptoms. All her housekeeping cares and duties for a week seemed to be oppressing her, with a demand for their instant performance. This state of mind was indicated by a depressed and worried facies. At the same time there was marked loss of coordination. She became slow and clumsy in all her movements. In this condition, she always claimed to be perfectly well. A suggestion that I examine her neck was treated as an insult.

3. As near as I could find out, it was always about ten hours after she first noticed the snapping sound in the neck that she began to complain of fever. As she always wanted treatment for this, the case was never allowed to progress any further, without reducing the luxation, except in the instance already related, when enlargement of the gland, exophthalmos, and amenorrhea were noted.

4. The pulse-rate had meanwhile been gradually rising and continued to rise till the luxation was reduced.

Reduction of the luxation stopped the snapping in the neck immediately. There was no immediate effect on the other symptoms, but they all invariably disappeared in the course of an hour. To this rule, there were, I think, five apparent exceptions. In every one of these instances subsequent exanination showed a luxation. Either the original luxation had been imperfectly reduced, or had slipped out again, or the coincident luxation of another vertebra had been overlooked. Complete reduction was always followed by complete symptomatic recovery.

There remained, however, permanently a slight indurated swelling of the gland and a slight degree of neurasthenia.

During this period all the cervical vertebræ, except the first and seventh, were affected; but the sixth only twice, and the fifth only a few times. The second, third, and fourth were continually slipping out in one direction or the other. The luxations appeared to consist in a slight rotation on an axis in the body of the vertebra, throwing the processes out of alinement. There was no paralysis, unless the tachycardia could be attributed to a partial paralysis of the pneumogastric. There was no other evidence of vagus paralysis. Ballet's sign was absent, and there is no evidence of its ever having been present in this case. This applies also to nystagmus, twitching of the lids, as well as the other ocular signs of Levi and Rothschild.

The problem of stopping the recurrence of the luxations now baffled me. I judged it due to the relaxing effect of the hot summer, and advised cold applications to the neck. These were refused. I then wrote for advice to the doctor in consultation with whom I had first seen the case. He put it up to a professor in one of Philadelphia's medical schools, who had treated the case in its first acute outbreak. He in turn consulted certain surgeons of Philadelphia, who refused to credit the "luxation theory" and advised iron, quinine and strychnine. As there was marked subsultus tendinum, I considered strychnine contraindicated, and did not give it at that time. However, the luxations stopped with the advent of cooler weather.

In June, 1907, the patient gave birth to her second child. After this event, the uxations recommenced. This summer was practically a repetition of the former one, except that the luxations recurred slightly less frequently, but continued over a longer period of time. Cooler weather again brought relief.

The next spring, there being no contraindication, I put her on the triple arsenates No. 2, and she went through the summer without any luxations or symptoms of hyroidism. Treatment was stopped at the commencement of cooler weather, and the patient remained free from active trouble for twenty-three months. During this time, the gland was slightly enlarged and hard, and there was a little neurasthenia all the time, varying in intensity under the influence of various causes, such as insolation or loss of sleep, for instance, but never becoming severe nor quite normal. She received treatment for divers minor troubles, the drugs used including digitalin and cactin as required, as the heart seemed very susceptible to morbific influences.

The next baby was born in August, 1909. After this, luxations began to recur, and continued to do so at varying intervals till about the first of April, 1911. I have reduced six in a week, and then none for a month or more. I have been unable to connect the tendency to luxations with any exciting cause. As soon as the luxations commenced, I tried the triple arsenates again, as before, but they did no good. Other medication was symptomatic. The gland gradually increased in size and the neurasthenia in severity. By July, 1910, she was not confined to bed, but probably would have been so, if she could have got someone to take care of her house and children. There was moderate tachycardia, no noticeable exophthalmos, but Von Graefe's sign was present. Menses were not suppressed.

About the first of August, I began to try thyreoidectin and chromium sulphate, both separately and together. The result was that the thyreoidectin reduced the pulse-rate to 60, when I stopped the drug. Later, the rate gradually rose again, and thyreoidectin again reduced it to 60. Then I found that I could maintain any rate, by giving a single 10-grain dose at bedtime. This drug also reduced the blood pressure. When the rate was down to 60, the pulse was so soft and compressible that it was not easy to count. I found it advantageous to combine ergotin with the thyreoidectin. This remedy, however, had no effect on the luxations, the gland or the neurasthenia. Its sole effect was on the circulation.

The chromium had a beneficial effect on the mental symptoms. Under it, the patient was saner and more self-controlled

than she had been for years before. But it had no other effect.

In November, I dropped these remedies, to try Hawley's emulsion of lymph-orchitic compound. During the first month of the trial, there were no luxations, and all signs and symptoms of thyroidism disappeared. The gland was reduced to normal size and consistence. The pulse became normal and Von Graefe's sign disappeared. The patient felt perfectly well and vigorous. Then luxations commenced to recur in rapid succession. I continued the treatment for two months longer, and then, as the result was a net loss, I dropped it. The gland was then slightly enlarged, but soft, there was a slight degree of neurasthenia, Von Graefe's sign was absent, the pulse was variable—sometimes normal, sometimes rapid. This is the condition at present.

From certain experiments I made with the orchitic lymph and other drugs, I judge that practically all its beneficial effect, in this case, was due to its spermin-content.

The fourth child was born May 8, 1911. Since then, the patient has been getting the arsenates of iron, quinine and strychnine, sanguiferrin and maizole. There have been no luxations to date.

In this case, autotoxemia is excluded. The patient inherits an exceptionally vigorous alimentary apparatus from both parents. She has had a course of clean-out and clean-up treatment, "on general principles," on several occasions, without any particular benefit. Whenever she has been under my treatment, she has been carefully watched for evidence of autotoxemia, but none has presented. She has been given laxatives whenever indicated, which has been seldom, even in pregnancy, and a very little goes a long way with her. Her oldest boy takes twice the dose of any laxative and needs it oftener than his mother.

The urinary findings have been negative. At times the phosphates have been greatly increased, but not during the past year.

Syphilis, tuberculosis, malarial cachexia, hysteria, uric-acid and other dyscrasias are likewise excluded, as are heat, cold, and pregnancy, both as predisposing and prophylactic factors. Yet the fact that the patient was free from luxations and the consequent thyroidism for years at a time, seems to indicate that the tendency to these luxations depends on a cause which acts at some times and not at others, and that a radical cure can consist only in the removal or prevention of this cause. It is clear that neither goiter nor neurasthenia can be either the active or predisposing cause of the luxations. For the latter were absent for years, when the former both persisted to a degree, and immediately after they had been entirely removed, the luxations recurred with great frequency.

This case proves that *exophthalmic goiter is not a distinct disease-entity*, but a concatenation of symptoms and signs which may depend on a variety of ultimate causes.

With regard to the question as to whether the luxation of a cervical vertebra may be one of these causes, this case has the evidential value of hundreds of cases, for in so many independent instances, it was followed by the same line of signs and symptoms which disappeared on reduction. DeWitt has reported four similar cases in *American Medicine*, and many more may exist unrecognized.

That purely *subjective fever* is a sign that *will bear watching*. I observed it in another patient, who had none of the signs or symptoms of Graves's disease but who did have a cervical luxation. It disappeared, with other symptoms as soon as the luxation was reduced. But as Kipling says, "that is another story."

What I want to know is, what is the cause of this tendency to luxations, and what can I do with this case on an Indian reservation? The only sure cure I know is excision of the offending vertebræ, but the patient refuses operation! I might take Dr. Kellogg's advice and send her to Battle Creek, but there is not enough money available to pay car fare, not to mention other considerations.

Chas. F. Morrison.

Klamath Agency, Ore.

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[This case as described by Dr. Morrison brings to mind a remark of Gross, that

some men learn more from the study of a single patient than others do from a thousand. Dr. Morrison's conclusions are logically deduced from the case as studied and described with a thoroughness too rare in clinical reporting. The omissions are undoubtedly attributable to his desire to condense. One that occurs to us is as to the elimination of total solids by the kidney during the period of febrile sensation. It might be worth while here to test the efficacy of pilocarpine as a symptom remedy.

The dependence of the malady upon the luxations is apparent. These could not occur thus but for undue relaxation or elasticity of their ligamentous bonds, and here we note an indication for berberine, a grain daily in divided doses, for many months. The temporary benefit following the first use of strychnine supports this suggestion.

The influence of altitude might be noted. Since the troublesome season is summer, she might follow the snow line up the mountains, preventing the attacks until the contraction was secured. The influence of sexual indulgence should be ascertained. —Ed.]

ON TAKING ADVICE

In the last number of Clinical Medicine we had an editorial on "The Doctor's Clothes," in which we advised, among other things, that the doctor should keep his trousers carefully cleaned and pressed. In our last mail we have just received an anonymous communication from a lady physician who writes that, while she usually follows the advice given in the Clinic, to the letter, she has experienced some difficulty in applying that given in the editorial just mentioned. However, her objection is not an insuperable one—as many a (male) reader of Clinichl Medicine can (but probably will not) testify.

SURGICAL INTERVENTION IN COLITIS

J. Bernard Dawson says, in *The Antiseptic* for April, 1910, that the only procedure which is of undoubted value in colitis is the operation of appendicostomy. By this the appendix is brought through the abdominal wall, and, after being secured, is opened by amputation of its apex. Through the lumen is passed a catheter, so that fluids can be passed direct into the ileum and colon.

By this means not only can the whole colon be thoroughly cleansed but it is entirely emptied, thus enabling the damaged mucosa to enjoy a rest both from active movement and from contact with feces.

It is best to use six or seven pints of the appropriate fluid warmed to 98° F. There is never any trouble with the fistula thus produced. There is no leakage, and the sinus shows a constant tendency to close, so much so that efforts have to be made to keep it patent. When a cure is obtained, it is wise to beep the opening capable of dilation for two or three months in case of relapse. If at the end of this time all is well, the opening can be easily closed by destroying the mucous membrane living and allowing it to cicatrize.

EPILEPSY—DEVIL IN THE HOG!

One of my neighbors has been having epileptic seizures for years and has been an invalid in consequence. A neighbor told him he could benefit his case if he would follow his directions, to "eat no pork in any form, not even food cooked with lard." The patient has had two slight attacks during the last month, is getting fat, and feels much better than for years. There must be a devil in the hog!

F. Pollard.

Fresno, Cal.

[Since the above item was written we have learned from Dr. Pollard that his patient for the last two weeks has continued to abstain from everything coming from the hog, even lard. He continues to improve, the attacks have become milder in character and he is better in every way. An experience of this kind would have wonderfully heartened the late Dr. Dowie, who excluded pork, oysters, tobacco and doctors from his holy city. The devil was in them all! But all levity aside, there is no doubt that the diet is a big factor in epilepsy.—Ed.]

NEWS NOTES

The Buffalo gnat is the latest "cause" of pellagra.

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The pneumonic plague at Harbin has totally defied treatment. There is not a solitary authentic case of recovery.

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It is said that since the beginning of the present year the total number of deaths from cholera in Italy has passed the 30,000 mark.

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Life in the isles of the sea has its drawbacks. Treating a native of Guam for cerebral syphilis, Kerr (U. S. Navy) found in his stools the eggs of hookworm, whipworm, and ascaris. Some wormy, eh?

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The State Board of Health of Illinois is making another effort to compel physicians to report births and deaths. The law provides a payment of a fee of 25 cents for each report made by physicians, coroners and midwives.

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We learn from an eastern newspaper that Mrs. Elizabeth Hillman of Wilkes-Barre, Pennsylvania, who was 99 years old last March, was operated on for appendicitis two weeks before, and had completely recovered. If this intense competition among surgeons continues even the cemeteries will not be safe.

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In a bulletin of the Department of Agriculture, Smith contributes further facts showing the striking resemblances between crown-gall of trees and human sarcoma. The specific bacterium, bacillus tumefaciens, was found in the tumor cells, and these in strands of tumor-tissue extending to the secondary growths. With cultures of this, the disease was reproduced.

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Dr. Olin West of the Tennessee State Board of Health states that a careful survey of White and Warren Counties in that state shows that more than 50 percent of the children between the ages of six and fifteen are suffering from hookworm disease, while large numbers of them are found to be carriers of other intestinal parasites. Many adults are also affected.

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While the sale of patent medicine is decreasing in this country, it is said to be increasing abroad. Within fifteen years the sale of American patent medicines abroad has increased 300 percent, and the trade in nostrums, which was always large in England, has penetrated to Europe and extended into Asia and Africa, the value of exports going beyond $7,000,000.

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Up in northern Wisconsin there is a well-known quack, "Dr." Till, whose principal stock in trade is a "plaster" which he seems to apply indiscriminately to all who come to him for assistance—and it is said they come in droves. According to Dr. H. M. Bracken, Secretary of the Minnesota State Board of Health, Dr. Till's plasters are responsible for at least three deaths in Minnesota. It seems that the applications are dirty, and that following the severe counterirritation, sepsis has occurred in a number of cases.

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We have read with interest the comments, pro and con, growing out of the charges which have been made against Dr. H. W. Wiley, the food chemist of the Agricultural Department. While it is difficult to arrive at the exact truth from what appears in the newspapers, yet it seems that if Dr. Wiley erred it was rather from a desire to increase the value of the important service in which he was engaged; and certainly no fraud against the Government was intended. We are pleased to observe that many medical societies in all parts of the United States are lending their endorsement to Dr. Wiley's cause, and that the President has stood by him.

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We have just received the program of the Thirteenth Annual Session of the National Medical Association of physicians, dentists and druggists, which was held in Hampton, Virginia, August 22-24. The membership of this association consists entirely of negro professional men. Judging by the character of the papers submitted and the large numbers of subjects discussed, the

society is doing excellent work. It certainly deserves the commendation and assistance of every white physician. The writer was pleased to note that the president of this association is Dr. Austin M. Curtis, of Washington. Dr. Curtis was a member of the class of 1891 of the Chicago Medical College. The writer remembers him very well.

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The writer is enjoying his work in the Berlitz School of Languages, in which for the last two months, he has been renewing his acquaintance with German. He can warmly recommend the work of this school to anyone desiring to study any of the modern languages, including German French, Italian and Spanish, either by personal attendance or through the books for self-instruction which the school publishes and supplies. The Berlitz School is the largest institution of its kind in the world, and has branches in all the principal cities in North and South America and in Europe. A student who begins work in one city may continue it in another if he so desires. Why don't you learn a language, Doctor, in your spare moments? It doesn't take much time and may be—is almost sure to be—of inestimable service to you. You can easily do it. If you are interested, call upon or write to The Berlitz School of Languages, Auditorium Bldg., Chicago.

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When medical ethics, so called, gets away from common sense, common justice, and brotherly kindness, it is not a very nice thing, and that is what seems to have occurred in England. For instance: The general medical council of that realm has recently ordered the removal of the name of Dr. F. W. Axham, on the ground of "infamous conduct in a professional respect." Dr. Axham has for forty-nine years enjoyed an unblemished record in the medical world and is considered one of the most distinguished surgeons in England. His sole offense consisted in having acted as anesthetist to "an unregistered person practising in the Department of Surgery." This "unregistered person" was a bone-setter of great renown, whose successes during the last ten years are the subject of a laudatory article in the *English Review*. Other physicians who have received the same stigma from the general medical council are several practitioners who have been employed by the Eugene Sandow Institute. While Clinical Medicine has broken many a lance against quackery, it has no sympathy with those of the Pharisaical caste who ruin the reputations and careers of men who do not follow exactly in the beaten path.

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It has long been known that there are certain individuals who harbor the typhoid bacillus, which they may carry about for years, personally remaining all the time in perfect health. It is now known that many of the "mysterious" epidemics of this disease, which cannot be traced to the ordinary means of transmission, really are due to individuals of this class, whose excretions may simply swarm with the specific germ.

A case of this kind has just been discovered in Chicago. Recently an epidemic of the disease appeared in the Englewood district, six cases being reported in one neighborhood within a single day. Inquiry disclosed the fact that the milk supply of families in which the disease had occurred came from a farm just outside the city limits. Three years ago the daughter of the farmer, a girl now twenty years old, had typhoid fever. This girl has charge of the washing of the milk-cans, and it now seems quite certain that the germs which she has harbored infected the milk supply of a large number of people in that particular section of Chicago. The inference is natural that when any individual recovers from typhoid fever, if he is engaged in any occupation which brings him into contact with food production or food distribution, the urine and feces of such person should be repeatedly examined, and until he is found to be free from the dangerous bacteria, he should not be permitted to engage in any occupation of that nature.

No doubt millions of typhoid germs are constantly being distributed by milkmen, bakers, grocers, cooks, dish-washers, and others.

According to *Public Health Reports*, issued by The Public Health and Marine Hospital Service, 23,552 cases of smallpox and 385 deaths were reported in this country during 1910. This is an average of 43.27 cases for each 100,000 inhabitants, and 1.63 deaths in each 100 cases. The important and interesting statement is made that vaccination does not always protect from the disease, as follows:

"Japan, as a nation, is probably as well or better protected by vaccination than is the United States, and, yet, in 1907-8 there was an outbreak of smallpox in Japan in which 19,101 cases were reported, with 6,273 deaths. Vaccination did not there modify the type of the disease to that found in America. In that outbreak among 5215 smallpox patients, 1527 were found who had never been vaccinated. This is interesting, as indicating a relatively small number of unvaccinated individuals. The epidemic apparently was one of considerable virulence, the general death-rate per hundred being 42.25 among the cases in 1907 and 32.32 among those in 1908, while the deaths among the unvaccinated were 69.4 per hundred cases. Kitasato believes that the virulence of the disease varies and that when it reaches the high point attained in Japan during 1907-8, individuals who have been previously vaccinated, and even those who have previously had an attack, contract the disease. In this outbreak there were 242 cases in seven prefectures in which the patients had previously had the disease. Of these 57 died."

State-Board Examination Department

Edited by R. G. SCHROTH, M. D., 546 Garfield Ave., Chicago, Ill.

PHYSIOLOGY

1. What is the function of the sudoriparous, or sweat glands? Where is the dominating sweat-center located, and how is this excited to action? (q1p10)

To excrete the sweat. The sweat-glands consist of a delicate homogeneous membrane lined by epithelial cells, whose function is to extract from the blood the elements existing in the perspiration. The dominating sweat-center is located in the medulla, although subordinate centers are present in the cord. The sweat-center is excited to action by mental emotions, increased temperature of blood circulating in the medulla and cord, increased velocity of blood, the influence of certain drugs, rise of external temperature, exercise, etc.

2. Describe the normal pulse. State the factors active in its maintenance. Give the rate during infancy, adult life, youth, old age. (q1p22)

The pulse is the sudden distention of an artery in a transverse and longitudinal direction, due to the injection of a volume of blood into the arteries already full of blood, at the time of ventricular systole. Factors active upon its maintenance are blood pressure, caliber of blood-vessels, influence of vasomotor nerves, inhibition, of accelerator and inhibitory nerves, mental emotion, and other causes. Rate during adult life, 72; youth, 90 to 110; old age, 60 to 70.

3. Describe the patellar reflex and state upon what its integrity depends. (q2p38)

The patellar reflex consists in a contraction of the extensor muscles of the leg and a movement of the foot forward when the ligamentum patellæ is struck sharply. The quadriceps extensor tendon must first be slightly stretched by putting one knee over the other, or a book or other object under the leg, and hanging the leg over the edge of a table. Its integrity depends upon a healthy condition of the entire reflex-arc, consisting of tendon, afferent (or sensory) nerve, posterior roots, and anterior horn of the spinal cord, the efferent (or motor) nerve, and the muscle itself.

4. Describe minutely the formation, elimination, and passage of urine.

The elimination of the constituents of the urine from the blood is accomplished by the processes of filtration and secretion. The water and highly diffusible inorganic salts pass by diffusion through the walls of the blood-vessels of the glomerulus into the capsule of Mueller, while the urea and remaining organic constituents are removed by true secretory action of the renal epithelium. The filtration of urinary constituents from the glomerulus into Mueller's capsule depends largely upon the blood pressure and rapidity of blood flow in the renal artery and glomerulus. The products of the filtration and secretion flow into the pelvis of the kidney, where it passes off through the ureters into the urinary bladder.

5. What ferments are secreted during the process of digestion? Give their reaction, action, and function.

Ptyalin, by salivary glands; alkaline in reaction; converts starch into sugar.

Pepsin, by gastric glands; acid;

Rennin, by gastric glands; acid; coagulates caseinogen in milk.

Amylopsin, pancreas; alkaline; converts starch into maltose and dextrin.

Trypsin, pancreas; alkaline; converts albuminates into albumoses.

Steapsin, pancreas; alkaline; breaks up fats into fatty acids and glycerin, from which soaps and emulsions are formed.

Envertin, pancreas; alkaline; converts cane sugar into dextrose.

MATERIA MEDICA AND THERAPEUTICS

1. Give the classification of phenacetin, somnal, hydrogen dioxide

Phenacetin is classified as analgesic, depressant. Somnal is classified as hypnotic and diurectic. Hydrogen dioxide is classified as an oxidizing agent for pus.

2. Name ten official alkaloids.

Quinine, atropine, morphine, hyoscine, aconitine, strychnine, cocaine, eserine, pilocarpine, sparteine.

3. What is meant by hemostatics? Describe their mode of action. Name several.

Hemostatics are agents which, when administered internally, arrest hemorrhage. Agents which have this action when applied ocally are called styptics. Hemostatics act by causing the

vessels to contract. Styptics act in the same way, besides causing formation of a clot in the mouth of the wounded and bleeding blood-vessel. Emetine, hydrastine, digitalis, cotarnine, adrenalin, ergot are hemostatics. Among the styptics may be named the actual cautery, acids, silver nitrate, alum, collodion, vegetable astringents.

4. Give action of absorbable metal upon the circulation. Name one, and explain its therapeutic uses.

Metals in themselves are never absorbable, but the union of them with other elements may render them soluble and capable of absorption. Thus metallic iron is dissolved by hydrochloric, nitric, and sulphuric acids. Such a preparation, taken internally, acts as a roborant by improving digestion and increasing the hemoglobin-content of the blood. It is a favorite remedy in chlorosis. Locally, certain ferric solutions stop bleeding by their astringent and coagulant action

5. Give derivation of ichthyol and its therapeutic application.

Ichthyol is derived from shale containing fossil remains of fishes. The largest deposits are in the Tyrol. The rock is treated with sulphuric acid, and the resulting ichthyolsulphonic acid neutralized with ammonia or soda. Ichthyol is used externally in eczema, psoriasis, acne, erysipelas, inflamed and rheumatic joints, contusions, sprains, glandular swellings, and inflammatory affections of the female genitalia.

6. What are the effects, uses, and doses of calcium chloride?

Calcium chloride is employed internally in the treatment of scrofulous enlargements of the glands of the neck. In cases where deficient bone formation is present, in the treatment of boils, pruritus, and to increase the coagulability of the blood in hemophilia, urticaria, and hemorrhage. It owes its activity to the calcium contained. In hemorrhages it should be used for a short time only, as its prolonged use diminishes the coagulability of the blood by exhausting the fibrin-ferment. The dose is from 5 to 30 grains.

7. Describe hypnotics and the two classes into which they may be divided. Give examples.

Hypnotics are agents used to induce sleep. They may be divided into two classes: those which relieve insomnia when due to pain, and those which have no influence over pain, relieving insomnia when due to nervousness and allied conditions. Morphine, codeine, hyoscine represent the first class, chloral hydrate and sulphonal, the other.

8. Name some soluble salts of iron.

Ferric chloride, ferrous iodide, ferric sulphate, ferric nitrate, iron and ammonium citrate, iron and ammonium sulphate, iron and ammonium tartrate, ferrous sulphate.

9. From where are the following alkaloids obtained: quinine, strychnine, hydrastine, atropine, physostigmine?

Quinine from cinchona; strychnine from nux vomica; hydrastine from hydrastis; atropine from belladonna; physostigmine from calabar-bean.

10. What are the uses of the bromides?

Bromides are indicated when overexcitement of nervous protoplasm is present, as occurs in epilepsy, hysteria, convulsions, seminal emissions, nervous insomnia, headache, migraine neuralgia, also in nervous vomiting. The bromides are given in large doses until the bromide effects are obtained. These are then maintained by smaller doses at infrequent intervals

OBSTETRICS

1. Define dystocia, hydrocephalus, funis, phlebitis, caput succedaneum.

Dystocia: abnormal, difficult or extremely painful labor. Hydrocephalus: collection of serous fluid in the cranium. Funis: the umbilical cord. Phlebitis: inflammation of a vein. Caput succedaneum: the swelling found upon the heads of many children if there has been much molding of the skull.

2. Name at least three causes in the fetus causing increase in size which may delay or interfere with labor.

Hydrocephalus, tumors, such as spina bifida, and anasarca.

3. What is ischiopagus parasiticus?

By this term is designated a monstrosity or congenital deformity growing out at the hips and which grows and acts like a parasite.

4. How would you treat a case of hourglass contraction?

In hourglass contraction the upper uterine segment is contracted upon the placenta and the lower segment and cervix uteri are dilated, and a ring is thus formed, which resembles an hourglass, hence the term. The treatment consists in removal of the placenta by hand, the patient being under an anesthetic. The fundus is gently pressed back into place, under aseptic and antiseptic precautions, with sterile gauze, and the interior of the uterus is then packed, to hold it in place and cause uterine contraction.

5. Mention regulations for diet during normal pregnancy.

If albuminuria should develop, meat and other nitrogenous food must be restricted. If the patient becomes anemic, without albuminuria, then meat, eggs, and milk should be partaken of in abundance. The patient should live simply and avoid foods which are likely to produce dyspepsia, heartburn, and colic, such as sweets, pastry, fried food, sauces, spiced dishes, and heating drinks. If the patient suffers from constipation, she should use fruits and coarse cereals. The stomach should not be overloaded, especially at night.

6. Bound the true pelvis. Define brim; false pelvis. Name the bones which form the obstetrical pelvis.

The pelvis is formed by the sacrum, coccyx, and two ossa innominata. The brim, or inlet, is bounded, in front, by the crest and spine of the pubes; behind, by the promontory of the sacrum; laterally, by the ileopectineal line. The false pelvis comprises the upper and expanded portion above the ileopectineal line. The obstetrical pelvis is formed by the fifth lumbar vertebra, sacrum, coccyx, and two innominate bones.

7. Enumerate the symptoms which indicate the death of the child in the womb, and state what course should be pursued in such a condition.

Cessation of fetal movements and heart-sounds; cessation of abdominal growth; appearance of milk secretion, retrogressive breast changess; peptonuria; palpation may disclose the macerated skull. The treatment consists in immediate evacuation of the uterus, after a positive diagnosis has been made.

8. What are the two most reliable diagnostic indications for inducing abortion? How would you treat a case of threatened abortion?

The two most reliable indications for inducing abortion are a justominor pelvis with a very small outlet, and, secondly, placenta prævia.

Threatened abortion is treated by putting the patient to bed and giving general physical and mental rest; ordering light nutritious diet; giving uterine sedatives, such as small doses of morphine and viburnin.

9. Describe the liquor amnii and state its functions.

The amniotic liquor is an almost clear fluid of alkaline reaction, of a specific gravity of 1002 to 1028, and contains various salts, urea, ammonium carbonate, albumen, lanugo, sebaceous matter, and epithelium from the fetal kidneys and bladder. The average quantity at the end of pregnancy is 680 Grams. The fluid is partly fetal and partly maternal. Its uses are, to allow the fetus to have freedom of movement without much muscular exertion; to protect against violence and sudden change of temperature; to receive the urine secreted in the last months of pregnancy; and possibly to supply water to the fetus.

10. Give the pelvis measurements.

The measurements of the female pelvis are as follows, in inches: Internal conjugate, 4 1-4 to 4 1-2. External conjugate, 7 1-2 to 8 1-2. Pelvic inlet, anteroposteriorly, 4; transverse, 5; oblique, 4 1-2. Pelvic cavity, anteroposteriorly, 4 1-2; transverse, 4 1-2; oblique, 4 1-2. Pelvic outlet, anteroposteriorly, 5; transverse, 4; oblique, 4 1-2. Interspinous, 9 1-4 to 10 1-2. Bitrochanteric, 11 1-2 to 12 1-2. Intercrestal, 10 1-2 to 11 1-2.

PHYSICAL DIAGNOSIS

1. What is meant by the term pathognomonic? Give three examples.

Pathognomonic refers to certain diagnostic signs or phenomena which point out the nature of a disease or illness; as Koplik's spots in measles, strawberry tongue in scarlet-fever, Argyll-Robertson pupils in posterior sclerosis.

2. What would be the finding in an examination of the blood in pernicious anemia?

In pernicious anemia, the blood would show: a diminished number of cells; relative increase in amount of hemoglobin; poikilocytosis; presence of nucleated red cells. There may be a diminished number of leukocytes. Free hemoglobin staining the sympathetic ganglion and ductless glands, as well as the liver.

3. In what diseases are the following conditions found—(a) clubbing of fingers; (b) loss of patellar reflex; (c) Cheyne-Stokes respiration; (d) wrist-drop; (e) pain in knee; (f) barrel-shaped chest; (g) Koplik's spots; (h) pain in the testicle and glans penis; (i) Argyll-Robertson pupil; (j) strawberry-tongue?

(a) Pulmonary tuberculosis; (b) locomotor ataxia; (c) severe disease just before death; (d) lead poisoning; (e) hip-joint disease; (f) emphysema; (g) measles; (h) renal calculi; (i) locomotor ataxia; (j) scarlet-fever.

4. Give the differential diagnosis between mastoiditis and otitis media.

In mastioditis the pain is more superficial, the area behind the ear is painful, red, hot, swollen, there is exudation and infiltration into the surrounding area, and swelling. No light is transmitted on transillumination. There may be no leukocytosis. In otitis media, the pain is more deep seated and all of the symptoms of an abscess appear, the ear-drum bulges out, there is leukocytosis, indican in the urine, light is transmitted on transillumination.

JUST AMONG FRIENDS

A Department of Good Medicine and Good Cheer
for the Wayfaring Doctor

Conducted by GEORGE F. BUTLER, A. M., M. D.

I AM inclined to believe that Burggraeve was right when he said that the medicament which will accomplish a desired end is one which can produce in the diseased organism the vital energy requisite for the restoration of normal equilibrium.

There is always a limit to the action of a medicine beyond which untoward or poisonous effects are apparent. Give "enough," therefore, to produce the desired results and no more.

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The effects of medicaments (which depend altogether upon the quality of the substances used, and the dynamic condition of the organic elements upon which they are employed) differ, not only with different individuals, but even with the same individual, according to the time of their application.

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The primary action of a drug may have ceased by the time its secondary effect begins to be manifested. For example, a purgative effect may follow the administration of atropine long after its antispasmodic and exciting action upon the longitudinal muscular fibers has disappeared.

The "action" of a medicament always exists, whatever be the impressionability of the patient, but the "effect" depends upon the impressionability of the subject and the intensity of action of the drug.

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In the treatment of many cases it is necessary to plan a scheme which will include not only the immediate present, but stretch far into the future. It may be desirable to give, at first, sedative or diaphoretic remedies, to be followed in a few days with tonics. Or, for instance, as in a case of suppressed gout, we may require eliminant measures with alteratives and a restricted diet for a time, after which tonics and good food are required.

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Another example: In acute bronchial catarrh it is well to give frequently repeated doses of the defervescent or dosimetric combinations until the skin has been roused into free action, after which we may administer stimulating expectorants, such as the carbonate and chloride of ammonium. What we aim at is first to throw the skin into action and lower the temperature, measures which relieve both the catarrh and the pyrexia; and then to give well-chosen tonics, and especially tonic expectorants.

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These arrangements are not contradictory, nor even inconsistent: each has its turn of usefulness, and then gives way to another. Such alternations do not indicate changes of opinion or caprice; they demonstrate a clear-sighted view of the case. As wheat is sown, grows and ripens ere it is cut, so complex plans of treatment have, then, several stages.

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It may be laid down as a broad rule that the toleration of iron diminishes as the age increases. With old persons iron rarely agrees very well, and then only in very small doses. As age advances the system seems to grow less tolerant of the drug in any form; and the dose must be diminished. It is often better to give old people vegetable tonics with alkalis and easily digestible food, than to give iron. I get good results from such drugs as quassin, strychnine arsenate, sodium bicarbonate or sodoxylin.

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There are two different states found in women where iron is either totally contraindicated or to be given with great caution. The first is the condition of amenorrhea in

florid, plethoric persons; in such cases a saline laxative is much better—sufficient to empty the bowels thoroughly. The other condition is menorrhagia associated with pallor and debility. In these cases the saline laxative with a little dilute sulphuric acid and a vegetable astringent, such as infusion of cinnamon, forms an appropriate medicinal agent.

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Arsenic is a powerful alterative, as we are finding out more and more every day. As a rule arsenous acid should be given after meals, but when the dosimetric-trinity granules are given, much more prompt action may be obtained by giving the arsenic before meals. Arsenic is also one of the best "pick-me-ups" we have. The arsenates—of caffeine, iron, quinine, sodium, strychnine, etc.—are wonderfully efficient remedies. Arsenate of quinine is a better antiperiodic than quinine sulphate. Arsenate of strychnine is of great value in almost all diseases, but especially in those which are accompanied with atony. It is the best tonic for all the functions, and by all means the best remedy to "take up the slack." In cases where some acute pulmonary trouble has degenerated into incipient tuberculosis the combination of arsenic with iron, with a liberal dietary, seems especially valuable, and gives most gratifying results.

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I have in my library "Culpeper's Last Legacy," being "The Choicest and most profitable of those Secrets Which while he lived were locked up in his Breast, and resolved never to be published till after his Death, containing Sundry Admirable Experiences in several Sciences, more especially in Chyourgery and Physick."

This book was written by "Nicholas Culpeper, Genl. Student in Astrology and Physick," and printed in London "for Obadiah Blagrave at the Black Bear in S. Paul's Church-yard, near the Little North Door. 1685."

Culpeper's ideas of hygiene were better than his therapeutics. He says, under "Cautions for the Sick:" "Let the Air and Chamber where the sick abideth, be cold by nature, or else you must make it so by art, as by keeping it continually washed, by strewing there, flowers and herbs and branches of trees that are of cold nature, as Roses, Violets, Water-lillies, Vine leaves, Briar-boughs, Willow-boughs, Endive, Succory, or the like; also to pour water out of one vessel into another near him, to let him smell of nosegays of cold flowers. . . . Let his meat be but little. Let his drink be water, in which a little cinnamon hath been boiled, or the juice of pomegranates or lemons is put. . . . . Let him eschew carnal copulation, exercises and baths, all perturbations of the mind, especially anger, all things that are binding and all things that cause stupefaction. . . Let not their bodies be costive, but have a special care that the Patient go to stool in good order at the least twice a day, if he do not, provoke him first with a clyster, then with an ounce of lenitive Electuary every night when he goes to bed."

It's a pity he didn't know of the value of an effervescent laxative saline in those days!

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Culpeper says: "To prevent drunkenness are many medicines left by the Ancients to posterity, *but for mine own part, I have never tried any of them* [maybe he didn't wish to destroy his taste for liquor], as to eat six or seven bitter almonds every morning fasting; to drink a draught of Wormwood-beer first in the morning; also to burn swallows in a crucible, feathers and all, eat a little of the ashes of them in the morning"!

I know some men on whom I should like to try this treatment.

—

Among Culpeper's "Physical Aphorisms" we have the following remarkable remedies:

"For procuring Chastity: Take the seeds of red Nettles, beat them into powder, and take a dram of it at a time in White wine; it procures chastity, they say, and is a far better medicine to rout out the lecherous Devil, than the liver of a fish." Here we have Culpeper's anaphrodisiac. His aphrodisiac prescription "for such as are defective in the parts of generation" is as follows: "In an old Cock you may find, when you have opened his gizzard and looked, a

white stone; sometimes more than one, never fewer; this being born in the sports of Venus, and beloved of all; this is the magical use of it."

He adds that a similar stone is found in the gizzard of an old hen—"and why might not a man draw a conclusion and think it rational when he hath done, that the male is medicinal, yea most medicinal for men, and that which is found in a hen for women?"

If any of our readers should care to try either of these remedies I should be glad to have a full report. "Experiences and Confessions" ought to be interesting reading.

In the treatment of pulmonary tuberculosis Culpeper was nearer to rational measures than he knew. He writes: "A most admirable remedy if not the best of remedies for a Consumptive, is to go into the Country in Plowing time, and follow the Plow, that so the smell of the Earth being newly broke up, may be taken in at the Nose; if this may not be by reason of the season of the year, or poverty of the Patient, then let it suffice to go out into the field every morning, and dig up a fresh turf and smell to it an hour or two together."

To prevent becoming infected with the plague he gives among others the following sensible precautions: "Let such as would avoid this disease, avoid the fear of it, for fear changeth the blood into the nature of the thing feared, the imagination ruling the spirits natural, as is manifest in women conceptions.

"Let all passions and perturbations of mind be avoided, together with all violent motions, for these inflame the blood, so also doth drinking much wine.

"Let your body be kept soluble; if it be not so naturally, take [a physic] at night when you go to bed."

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Whatever happens, remember that it might have been worse and it will grow better as fast as we consider it good. Looking back over the years we can only reflect that our troubles were but blessings in disguise. If we could realize this in the midst of our tears, we could smile now as we shall smile later. The *heart* of everything and everybody is good. Find the heart and be happy. Meanwhile it may be a relief to make a joke of it. The best remedy for the "blues" is the habit of smiling at ourselves, and if we can't smile, let us smile because we can't. Overseriousness propagates disease-germs at an alarming rate, and a hearty laugh is one of the best germ killers. A very few tears will drown an atom, and we are all atoms.

Spiritually, we are the suns and stars of the future. Physically and mentally, we are for the present mere grains of sand. And *sand* is a good thing to have in our make up; even sentiment is to be kept solid, and to keep it solid we must mix sand with it. We fail often for lack of grit.

The highest rate of interest that we pay is on borrowed troubles. Things that are always going to happen never do happen. Face all things; even adversity is polite to our face.

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The better acquainted I become with doctors, and with men generally, for that matter, the more convinced I am that men are seldom underrated. The mercury in a man (I speak of "mercury" figuratively, of course) finds its true level in the eyes of the world just as certainly as it does in the glass of a thermometer.

I have known doctors who prided themselves on their medical lore; they would show me their medical libraries, as if the mere possessing, or reading, even, of a large assortment of medical books made them good physicians. Too much reading and too little thinking have the same effect on a man's mind that too much eating and too little exercise have on his body.

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A learned fool is one who simply *remembers* what he has read. Human knowledge is not very comprehensive, after all, for I have seen doctors who could give you the minute pathology of almost every disease known, but who couldn't treat intelligently a case of mumps or an ingrowing toe-nail, or even locate the north star, to save their lives. The vanity of some men is so much

more a match for their experience that they seldom learn anything by experience. A man can't learn to be a *wise* physician—a big, all-around doctor—by just reading medical books alone, any more than he can learn to be handsome by reading the "Health and Beauty" departments in the daily papers.

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True sympathy and a knowledge of human nature will reveal much to us that science cannot see. A wide knowledge of our common humanity, in all its aspects and workings, is of much assistance in managing different classes of patients. Such knowledge cannot be obtained by reading medical books alone. We must study mankind by mixing with men, interesting ourselves in men's work, and by reading the best books on various nonmedical subjects.

Many apparently successful doctors do not seem to be able to search out and understand the moral causes of disease; they cannot read the book of the heart, and yet, as has been well said, "It is in this book that are inscribed, day by day, and hour by hour, all the griefs, and all the miseries, and all the vanities, and all the fears, and all the joys, and all the hopes of man, and in which will be found the most active and incessant principle of that frightful series of organic changes which constitute pathology."

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A doctor *liberally* educated is trained in the humanities, skilled in whatever pertains to human welfare. A liberal education is such a one as enriches one's mind, so that it finds contentment in pursuing its own thoughts; so that it does not need to hire out its faculties to make money with which to buy happiness. Liberal culture is public spirit, and the ability to pursue its promptings; a heart at leisure from itself, to soothe and sympathize. Any other education is narrow, shackled, not *liberal*, because not free, however much one may know and however large the wages the knowledge may earn.

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Jacobi has said somewhere: "The medical profession only is concerned in the whole man, body and mind, each conditioning and depending upon the other. From the cradle to the grave his [the physician's] advice is required and sought for. The physiological development of period after period of life requires his attention and study. With the changing conditions of the body, its marks on mind and soul are examined, the incipient symptoms of physical and mental observations are known. Public and private hygiene are his domains. The care of the present generation and of those on whom rest the future greatness of the country is the legitimate subject of his study."

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The doctor has a double responsibility. He shares the duties of citizenship with every other intelligent man, but he has his own grave and responsible duty to perform in behalf of the commonwealth; in fact, there is nothing connected with human life which does not legitimately belong within his domain. How necessary, then, is it for the doctor to be honest, fearless, big and broad. We need in our profession, as in all other walks of life, more men with strong personalities to stem the tide of shuffling weakness and give honesty and tone to politics, trade and society.

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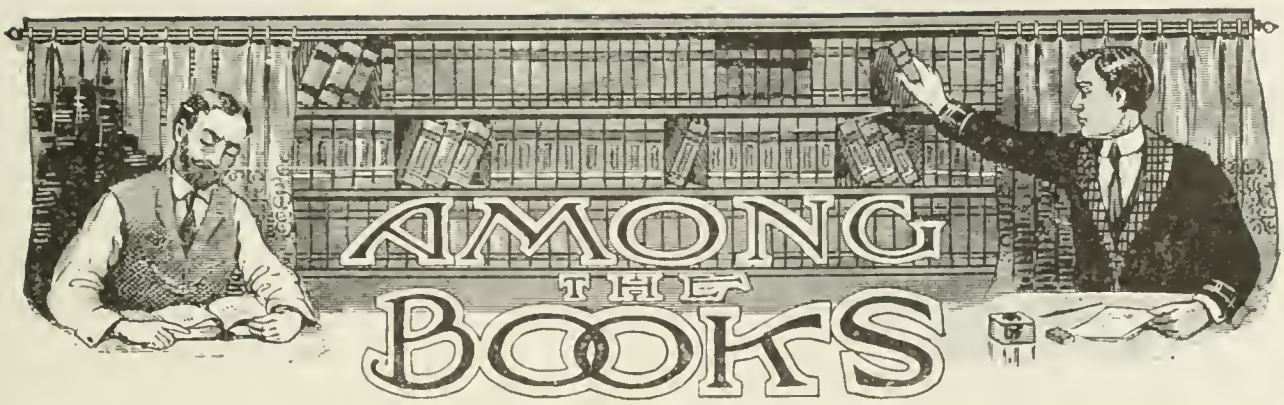
The great cry of today is for the better, bigger, more hopeful men. The ideal doctor is not working for pay alone; he is working and living to give help and love, and health and life, in every form, by which a strong nature can express itself.

We should try to leave the world happier, wiser, better and richer in the things worth while.

Our creed should be one of Love, of Charity, Hope and Optimism. In closing my chat I'll give you *my* creed in the following original Spenserian stanza.

I will not yield this everlasting truth—
That joy soars far above each earthly sigh,
Set like a star in the deep night of ruth,
And throned in light too pure, too sweet, to die.
'Tis this that lifts bowed-down humanity
To thoughts sublime, and actions that entwine
The heart of man with beauty; earth and sky
Repeat, forevermore, "All is divine."
And thro' the grossest clay the smile of God doth shine.



McCARTHY'S "HYGIENE FOR MOTHER AND CHILD"

Hygiene for Mother and Child. A manual for Mothers and Nurses. By Francis H. McCarthy, M. D. New York and London: Harper and Brothers, 1910. Price $1.25 net.

The volume before us presents the results of a rather ambitious attempt of the author to "tell the mother all about it," and is designed particularly for her use, leading her from the beginning of pregnancy through this often so trying period, and advising her what to do for her baby and for the growing child.

In contrast to many similar treatises on the book market, the important subject of feeding, both of infants and of children, has been treated very exhaustively, and the principles of infant feeding, in health and in illness, are excellently described. The clothing of infants and children; the amount of sleep and exercise required; the education, including physical, mental, and moral training; and, lastly, diseases and accidents peculiar to childhood are all considered in their turn, and in a manner usually sufficient for an intelligent mother and which may relieve the physician of the necessity of detailed instruction.

What we like about the book is the sound common sense permeating the entire text. The advice to pregnant women, the directions concerning the care of the baby, and the management of the growing child are all characterized by their wholesome and conservative tenor, no fad or craze having found expression. Aside from the physical care, we commend particularly what the author has to say on character training, on school life, on punishment, etc., while his views on the need of sex education are excellent.

While we cannot find fault with the book from our own point of view, we fear that it is written above the understanding of uneducated women. Their more fortunate intelligent sisters will, however, find it of great assistance, and they will undoubtedly appreciate the heavy-type marginal notes which indicate the subject-matter of the various paragraphs.

For the physician the book is of value in affording much information in a form that can be immeditaely passed on to the mother without having to be translated into ordinary language; the freedom from technical terms, and the plain, fluent "United States" of the language being decidedly restful. By all means get the book, for yourself and for the Good Wife, and also tell her to pass it along.

STEDMAN'S "MEDICAL DICTIONARY"

A Practical Medical Dictionary. By Thomas Lathrop Stedman, A. M., M. D., Editor of "Twentieth Century Practice of Medicine" and of *The Medical Record*. Illustrated. New York: William Wood & Co., 1911. Price, thumb-indexed, $5.00; plain, $4.50.

This latest candidate for honors in the not inconsiderable list of medical dictionaries is certain, even on first acquaintance, of gaining many friends. The learned editor of "Twentieth Century Practice" and of *The Medical Record* is unusually well equipped for appearing as an authority on medical English and on medical onomatology, and this becomes especially evident in his praiseworthy endeavor to replace incorrectly formed technical terms by words

in which their Latin or Greek derivation has been duly respected and in the construction of which violence is not done to the grammatical and etymological conscience of scholars. The barbarous atrocities perpetrated in the past under the guise of medical terms have very justly aroused the protest of many Latin and Greek scholars, among whom, in our own country, Achilles Rose has for years pleaded, with pen and tongue, for the establishment of a correct onomatology. It is gratifying to notice that many of Dr. Rose's suggestions have been adopted in the present dictionary.

A noteworthy innovation observed is in the case of diseases or conditions named after persons, in that these are described under their proper scientific designations, instead of under the eponymic, as is the custom. Thus, for instance, under "Bright's Disease" a very brief definition only is given, while under the head of "Nephritis" will be found the detailed description of the condition. Or, under "Australian Blight" merely the definition of "Angioneurotic Edema" is given; but turning to "Edema," this particular angioneurotic variety is described. This plan is a highly commendable one, for it can hardly be called scientific to designate a disease, or even a mode of treatment, by the name of an investigator, no matter how meritorious his work may have been.

But eponymic terminology even may give rise to confusion when, as in the case of exophthalmic goiter, the names of several scientists are applied indiscriminately. So, in this dictionary, the last-named affection is referred to under the heads of "Grave's Disease," "Basedow's Disease," and "Flajani's Disease," but it is described only under its proper designation, namely, "Exophthalmic Goiter." Right here, however, we may call attention to the fact that we miss mention of the tremor that is present, in the majority of cases, as a prominent symptom (see page 297), although it is enumerated on page 357, *sub* "Goiter, Exophthalmic"; and then, under this last heading, the disease is further referred to as "Parry's" and as Parson's Disease," while in this place Grave's name does not appear.

In the definition of terms, the author shows a praiseworthy exactness and precise wording. For instance, while we read in a medical dictionary published in 1906 that "infection" is "the communication of disease from one person to another, whether by effluvia or by contact, mediate or immediate; also by implantation of disease from without"; Stedman defines the term more correctly as the "invasion by living pathogenic microorganisms of a part of the body where the conditions are favorable to their growth and whence their toxins may gain access to and act injuriously upon the tissues." And, further, an "infectious disease" is one "due to the presence and vital activity of a unicellular microscopic animal or vegetable parasite." In view of the fact that the term "infection" is employed, even by prominent writers, in a careless and slipshod manner, as synonymous with infectious disease, this definition is significant and should be adhered to. Guttmann ("Medizinische Terminologie," third edition) calls infection "the invasion of the body by pathogenic agents or the process leading to an infectious disease"; and Orth (Senator-Kaminer, "Krankheit und Ehe," 1904) says clearly: "The infection is, in my opinion, accomplished with the transmission of living, virulent (*wirkungsfaehigen*) parasites. (*Nota bene*, the translation of this passage, in the English edition published by Paul Hoeber, in 1909, is not quite correct.)

If we are permitted to offer a few criticisms, we may say that we miss, under "Nuclein," mention of its therapeutic uses, as also of the sources from which the nuclein preparations for therapeutic use are derived (*i. e.*, principally brewer's yeast and germs of wheat). Under "Consumption," the third meaning given, viz., "tuberculosis, especially of the lungs or intestines," is too wide, since consumption is only the destructive stage of tuberculosis. On the other hand, we are pleased to find the correct distinction made between *tubercular* and *tuberculous*, the former properly being limited to nodular conditions and used as a pathologic term, while the second form (i. e., tuberculous) should be restricted to any condition produced by the tubercle

bacillus. The present writer long has insisted on this distinction, and he is supported in his contention by such men as v. Ruck, Hektoen, Zeit, and others.

Space forbids a closer entering into the detail of this excellent dictionary. A conclusive appreciation of its merits can be obtained only by constant use and comparison with other works of reference. We have no hesitation in calling it the most correct and most satisfactory medical dictionary in the English language, and do so deliberately after intimate acquaintance with many other similar works. While the definitions are almost invariably exact, they are also concise, and the limitations of a dictionary for handy use have always been observed. The compilation is not, and does not pretend to be, an encyclopedia. As a dictionary, it fulfils its mission perfectly. The slight inaccuracies and *lacunæ* unavoidable in a first edition will undoubtedly be remedied in subsequent revisions.

Mechanically, the volume is well adapted for its purpose, being bound firmly in limp leather.

H. J. Achard.

BRICKNER'S "SURGICAL SUGGESTIONS"

One thousand Surgical Suggestions. By Walter M. Brickner, B. S., M. D., Adjunct Surgeon Mount Sinai Hospital, Editor in Chief, *American Journal of Surgery*, with the collaboration of James P. Warbasse, M. D., Harold Hays, M. D., Eli Moschcowitz, M. D., and Harold Neuhof, M. D. New York: Surgery Publishing Company. Cloth bound, semi-de luxe, $1.00.

This is one of the biggest little books ever presented to the profession. In its 225 pages are found a collection of 1000 epigrammatic, succinct, virile and instructive hints based upon actual experience, and every one a lesson in itself.

The suggestions are so arranged and indexed that all subjects covered can be immediately referred to and the particular hint upon any particular subject immediately found. It bristles with pointed and useful suggestions which in many cases might just turn the scale from failure to success. Most readers of medical journals are familiar with these apt little hints, they having been extensively employed as "fillers" by many periodicals. This is a collection of kernels, divested of the shells, and seasoned with Attic salt to perfection. It's well worth the dollar.

BASSLER'S "DISEASES OF THE STOMACH"

Diseases of the Stomach and Upper Alimentary Tract. By Anthony Bassler, M. D. Philadelphia: F. A. Davis Company. 1910. Price $6.00.

The volume before us presents the latest information on the diseases of the stomach and upper alimentary tract. The author disclaims any desire of assisting in the erroneous movement of divorcing these affections from the field of internal medicine, to which they rightfully belong. It is, therefore, to the general practitioner that he addresses himself and for whom the various gastric and intestinal disorders, their causation, diagnosis, and treatment are described. The author has some opinions of his own which tend to make the work more interesting.

The book is well written and fully illustrated. We recommend it cordially.

BERKELEY AND BONNEY'S "GYNECOLOGICAL SURGERY"

A Textbook of Gynecological Surgery. By Comyns Berkeley, B. A., M. D., and Victor Bonney, M. D., Containing 392 black-and-white illustrations and sixteen colored plates. New York: Funk & Wagnalls Company. 1911. Large octavo, cloth. Price $5.00. net, by mail $5.25.

"This book may be said to represent the most successful methods now used by the leading gynecologists of England. It sets forth the results of the ripe experience, and depicts the skilful methods of these two eminent surgeons, acquired during years of operating service."

At first thought it may seem like carrying coal to Newcastle to present an English or, in fact, any foreign surgical manual to our readers, for we are accustomed to

look upon our own surgeons as the peers of any. And yet it is not only of interest to know how they do things across the ocean, but the volume before us affords an excellent operative technic for all operations that are done on the female genital apparatus, as well as on the urethra, bladder, and bowel. The methods described are those of the authors, and the book represents the results of their extended experience.

CROTHERS' "INEBRIETY"

Inebriety: A Clinical Treatise on the Etiology, Symptomatology, Neurosis, Psychosis and Treatment: and the Medicolegal Relations. By T. D. Crothers, M. D. Harvey Publishing Company. Cincinnati. 1911. Cloth, 8vo., pp. 365.

Dr. Crothers has devoted his life to the study and treatment of inebriety. To what more worthy object could any man devote his life? It is largely due to his indefatigable labors that inebriety is now generally recognized as a disease, dependent on somatic morbidity, and amenable to material remedies.

This book is one every physician should have in his library; first, because it tells him how to treat inebriates; second, it will enlighten him, so that he can protect his patients from the all-promising quacks; third, it may awaken the doctor himself to the importance of the matter.

Withal, the book is more interesting than most novels. It tells us that in Egypt men discussed these problems, and knew inebriety as a disease twenty centuries before Adam; that battles were won by a Pharaoh, who retreated, leaving beer to undo his adversaries; and many other curious data. By all means, get this book —no need to add, read it: you can't help reading it if you once begin!

MERCK'S "MANUAL OF THE MATERIA MEDICA"

A Ready Reference Pocket Book for the Physician and Surgeon. Containing a comprehensive list of Chemicals and Drugs—not confined to "Merck's"—with their synonyms, solubilities, physiological effects, therapeutic uses, doses, incompatibles, antidotes, etc., a table of Therapeutic Indications, with interspersed paragraphs on Bedside Diagnosis, and a collection of Prescription Formulas, beginning under the indication "Abortion" and ending with "Yellow-Fever"; a Classification of Medicaments; and Miscellany, comprising Poisoning and its Treatment; and an extensive Dose Table; a chapter on Uranalysis, and various tables, etc. Merck & Co., 45 Park Place, New York. 1911. 493 pages. Sent on receipt of forwarding charges of 10 cents, in stamps, to physicians, or to students enrolled in any college of medicine in the United States.

TWEEDY AND WRENCH'S "OBSTETRICS"

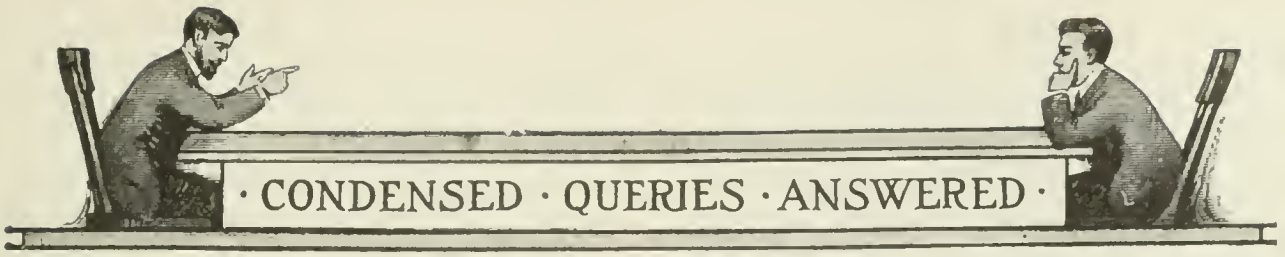
Practical Obstetrics. By E. Hastings Tweedy, F. R. C. P. I., and G. T. Wrench, M. D. Second Edition. Oxford Medical Publications, London. 1910. Price $5.00.

This is the second edition of "The Rotunda Practical Midwifery," which was announced in CLINICAL MEDICINE last year in the February number. The fact that a second edition was called for so soon testifies to the value of the work. It is certainly of interest to know how they do things in the "Rotunda," which, with the possible exception of the Wiener Krankenhaus, has the largest obstetric clinic in the world.

"RELIGION AND MEDICINE"

Religion and Medicine; The Moral Control of Nervous Disorders. By Elwood Worcester, D. D., Ph. D.; Samuel McComb, M. A., D. D.; and Isador H. Coriat, M. D. New York: Moffat, Yard & Co. 1908. Price $1.50.

This is an authoritative presentation of the Emmanuel movement by the pastors who originated it in collaboration with one of the physicians on their consulting staff. It presents their side of the question fairly and in moderation, and if we do not always agree with the authors, we must, nevertheless, accord them the right of their opinion.



PLEASE NOTE

While the editors make replies to these queries as they are able, they are very far from wishing to monopolize the stage and would be pleased to hear from any reader who can furnish further and better information. Moreover, we would urge those seeking advice to report the results, whether good or bad. In all cases please give the number of the query when writing anything concerning it. Positively no attention paid to anonymous letters.

ANSWERS TO QUERIES

Answer to Query 5728.—V. S. E., on page 1015, September, 1911, asks for treatment for membranous dysmenorrhea. This disorder is so difficult to remedy, and is disturbing to the patient, so I cannot refrain from giving your readers the benefit of my medical scrap-book, in which years ago I recorded that the disease had been cured by 1-48 grain corrosive sublimate three to four times daily, after meals, and also by the use of hydrastis canadensis, taken internally. I cured a most obstinate and painful case by the former remedy alone. It doubtless acts as an alterative. This disease will invariably produce sterility. I consider this valuable medical information, as many women are rendered miserable by the disorder.

V. E. Lawrence.

Ottawa, Kansas.

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Answer to Query 5728.—Why didn't you show Query 5728, enuresis diurna, to Dr. Butler? He would have added the one thing needful to your excellent answer —massage. See page 1007. I have never tried his method, and should think that stretching the urethra would tend to make a bad matter worse. I place a finger in the vagina and roll the vesical sphincter and urethra against the pubis. If you try this plan, be sure to see that the bladder is emptied immediately before the operation. The parts are hypersensitive and the patient feels as if she were urinating, or just about to. You cannot keep it up more than a minute or two the first time, or you will drive your patient crazy. One treatment will give temporary relief, whatever the cause of the enuresis. Repeated treatments will cure enuresis caused by muscular or nervous insufficiency of the sphincter —especially the latter. By the time the patient gets used to the treatment she will be cured.

2. The case of membranous endometritis refusing curetment is just the one for Micajah's wafers.

Chas. F. Morrison.

Apopka, Fla.

QUERIES

Query 5734.—"Treatment of Goiter." J. F. R., Colorado, desires to know what preparations we esteem of most service "for internal medication of goiter and auxiliary or outward application."

Excellent results have been secured from a combination of strychnine arsenate, gr. 1-134; ergotin, gr. 1-6; quinine hydroferrocyanide, gr. 2-67, given every four hours; iridin, gr. 1-6; phytolaccin, gr. 1-3, one hour before food; and calx iodata, two tablets three times a day on an empty stomach. Apply to the goiter compresses wrung out of a strong solution of potassium iodide. If possible, twice a week place the negative pole of the galvanic current on the compresses for ten to fifteen minutes. Chromium sulphate has, during the last year or so, proven remarkably effective in a great number of instances, 5 to 10 grains

of the drug being given three times a day.

We know of no local application more effective than potassium iodide. In the intervals between electrical treatments, the patient may inunct 1-2 to 1 dram of ointment of potassium iodide. If the goiter has become cystic, surgical treatment alone will produce results. In cases seen early, we should be inclined to alternate thyroid tablets with chromium sulphate.

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QUERY 5735.—"Uncinariasis." F. W. W., Oklahoma, wishes to know how he can diagnose a case of hookworm disease without using a microscope.

To ascertain the presence of uncinaria americana is a comparatively simple matter, provided the worm itself can be discovered in the feces. This parasite belongs to the nematodes, and inhabits the duodenum. It resembles the threadworm, but is somewhat larger. Uncinaria americana (a different species than the one found in Europe) has, instead of hooked teeth, a ventral pair of slightly developed lips. The male is 7 to 9 millimeters long; the female, 9 to 11. The worms themselves often are of a reddish hue. If the stools of an infected patient are set aside in a warm place, the embryos can be seen developing under the microscope. To observe their development, a small portion of feces should be spread upon a slide.

A rough test is, to place a small part of the stool on white blotting paper for an hour. If the paper then is stained reddish, it is a sign that the worm is present. In all suspected cases the feces should be examined microscopically. Of course the finding of the worm itself settles the diagnosis. For a description of uncinariasis, see any modern work on diagnosis or practice. Read also the answer to Query 5611, p. 930, August number of 1910.

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QUERY 5736.—"Senile Nervous Debility." M. L. F., Wisconsin, wishes to know whether the "nervine" formula suggested by Waugh (gold bromide, gr. 1-2500; arsenic bromide, gr. 1-250; strychnine valerate, gr. 1-134; nickel bromide, gr. 1-16) is safe, if indicated, in nervous disorders of the aged. "A lady patient sixty-five years old, but not well preserved, complains of an 'all-gone' feeling in the stomach; is constipated; has foul tongue and breath; skin is dry and hot. No elevated temperature. Heart is weak, but no murmurs. No cough or pulmonary symptoms! Many symptoms of a deranged digestive tract and of nervous disturbance—is afraid of losing her mind. Sleeplessness is a feature."

This is our correspondent's first "senile patient," and as the patient had dismissed two physicians before he was called, he desires to "make good."

The nervine combination is a perfectly "safe" formula, and is very frequently indicated. The dosage, of course, depends to a very great extent upon conditions present in the individual and upon the arsenic and bromide content. In acute conditions one or two tablets may be given half-hourly until beneficial results are secured or until fulness of the head is experienced. In ordinary cases, one tablet three or four times daily for several days is sufficient. In grave cases of a chronic character, two or even four tablets may be given every three hours until evidences of drug-sufficiency are manifested. Always stop giving this combination if the temperature rises or the gums feel hard.

Bear in mind that the "old" patient frequently suffers from no namable malady, but from a general systemic derangement due to retarded elimination and sclerosis. It is essential to understand thoroughly the underlying disorders in such cases. Depletion together with simultaneous tonic treatment and thorough flushing of all the sewers of the body and an attempt to revitalize the blood-stream are the prime factors in the successful treatment of the aged.

In this case we are quite sure that the disturbance of the nervous system is due to an underlying acidemia or autotoxemia. The foul tongue, constipation, etc., distinctly bespeak this condition. We should have the lady's urine examined. Meanwhile eliminate. Stimulate hepatic activity, assist digestion, and generally improve the condition of the body-chemistry. Phosphorus is indicated: try the phosphates

(nucleinated) or the oil. Phosphoric acid with meals.

Give us full clinical data, and we shall be in a position to suggest an effective line of treatment. We hardly think the nervine formula indicated at this particular time.

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QUERY 5737.—"Removal of Smallpox Scars." I. N., New York, wishes to be informed whether any way of removing smallpox pits has been discovered. He has heard that it is being done in Vienna.

The literature on the removal of cicatrices, especially of smallpox scars, is not extensive; in fact, but little interest has been felt in the subject until lately, when more attention is being paid to cosmetics. Furthermore, no method promising certain results has been developed, nor, in the nature of things, can this be expected. At best, this line of practice probably will remain a feature of individuals specializing in cosmetic procedures. The x-rays have been tried by some with a measure of success, but they are altogether too dangerous to be considered by inexperts. Phototherapy likewise has proven useful in the hands of specialists. Injections of thiosinamin are sometimes used, while the internal use of thyroid gland also has been recommended. In desperate cases, tattooing the white scar-tissue with carmine is resorted to, to cover up the contrast.

One of the best expositions on removing cicatrices we find in Kolle's "Plastic and Cosmetic Surgery," from which we quote in full, as follows:

"For very small scars, as those occasioned by blepharoplastic operation, the author employs the 20-percent thiosinamin plaster mull made by Unna. These are to be applied every day or night, according to the conveniences of the patient, and allowed to remain on for several hours each day. At first these plaster mulls are inclined to cause erythema and exfoliation of the epithelium, therefore they might be used on alternate days to keep the parts more sightly.

"For scars of large extent the above method will answer best. If there is considerable contraction, the parts should be massaged daily to soften and stretch them. Eventually the depression of contour may be corrected by hydrocarbon protheses introduced subcutaneously following subcutaneous dissection, if deemed necessary.

"Small pits, where discrete, are best removed with a fine knife and brought together by a fine suture which is to be removed on the fifth day.

"Confluent pittings, as after variola, must be removed by decortication or peeling methods.

"The pits, if spread about the face promiscuously, may be treated separately by the peeling method, but when they lie less than one inch apart, it is best to treat the skin of the whole face. This is done by applying pure liquid carbolic acid to the skin with a cotton swab. The skin at once assumes a white color. If the pittings are not very deep, one application of the acid is sufficient. If deep, one or two more applications are made as the preceding one dries. In very deep pits, the surgeon should apply the acid to the pit proper several times, blending off the application at the periphery.

"When the surface thus treated has become dry, adhesive plaster, cut in half-inch strips of desirable length, are put on the face, one above the other, slightly overlapping, until the whole treated surface is well covered, mask-like. The author uses Unna's zinc-oxide plaster-mull for this purpose, as it is backed with gutta-percha, which readily adapts itself to the curvatures of the contour. The adhesive-plaster mask is not removed until about the fourth or fifth day, when it will be practically forced away from the skin by the excretions thrown out from the derma. In some cases there is considerable pus.

"After removal of the mask, the skin, now very red and tender, is cleansed with a solution of mercury bichloride, 1 in 10,000. After the cleansing, a mild soothing ointment, such as zinc oxide in vaseline, is used for several days until the skin takes on its normal epitheliar layer and appears normal in color. No water or soaps are to be allowed during the latter period. In the later days of the treatment, the skin may be cleansed with a little borated vaseline or even olive oil, used with ab-

sorbent cotton. If there is a pigmentation of the new skin, this should cause no alarm, as it will fade out in from six to eight weeks.

"Tincture of iodine has been used for the same purpose, as well as its mixture with carbolic acid. Resublimed resorcin is also advocated, but the resultant peeling will not prove thick enough to give a satisfactory result. If, for any reason, the effect obtained is not as desired, the patient should wait for several weeks and have the treatment repeated. "It is hardly necessary to say that the application used should not get into the eyes. The upper eyelids should not be treated, since no benefit arises from it. If there is a redundancy of tissue, it should be removed surgically, as elsewhere described."

In the atrophic, or depressed, type of scars, electrolysis, according to McIntosh, ("Medical Electricity") is "the best treatment, the object being to remove the superficial layer of epithelium, and thus by means of dressings to bring up the granulating tissue to the normal level. Being a tedious process, however, it is not well suited for multiple smallpox pits." This method is described, although briefly, by Lanphear, in his "Surgical Therapeutics," from which we quote:

"When operation is not possible or not desired, treatment by electricity may be tried. In some cases the scars have softened, the discolorations have disappeared, the surface taking on more nearly the appearance of normal skin. The application is made with two large electrodes moistened with a 10-percent solution. The negative electrode, which is applied to the sacrum, has an area of 30 square inches. This is connected with the positive pole of the induction coil, and this electrode has a surface of about 16 square inches. The apparatus should have a commutator that will enable the operator to use either the galvanic or faradic current alone or the two combined, the strength of the constant current employed to be only from 3 to 4 milliamperes. The induction current should be sufficiently intense to provoke appreciable contraction of the muscles. Each treatment should last from fifteen to twenty minutes."

Nowadays, of course, a good physician will not permit disfiguring "pox pits" to occur in his patients' faces, since the prevention of such scars is a comparatively simple matter, by following the procedure as described in Candler's "Everyday Diseases of Children," page 243.

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Query 5738.—"Constant Use of the Sulphocarbolates and Strychnine." J. A., Cuba, writes as follows: "(1) Is the daily use of the sulphocarbolates injurious? (2) I have read somewhere that to take sulphate of magnesium constantly weakens the organism, and predisposes to tuberculosis. That the intestinal mucous membrane suffers and its functions are modified until atony or paralysis is set up. (3) Is the daily use of strychnine, as Burggraeve recommends, advisable?"

It is not advisable to take any preparation of magnesium sulphate every day unless the conditions present in the individual demand such medication. It is perfectly proper to exhibit magnesium sulphate each day for a limited number of days when it is desired to cleanse the intestinal tract thoroughly. There is a difference, moreover, between purified preparations of magnesium sulphate and the crude commercial epsom salt; as a matter of fact, thousands of individuals have used a saline laxative daily for months and even years without being injured in any way. Still, the fact remains that the prolonged use of magnesium sulphate is generally not advisable.

The daily use of small doses of strychnine arsenate prove beneficial in a great many cases. The aged may advantageously take this drug for prolonged periods.

The habitual use of the sulphocarbolates has never been recommended, and it is not only unnecessary but unadvisable to continue the exhibition unless indicated by an abnormal condition of the digestive tract. If an underlying acidemia or autotoxemia exists, and examination of the feces and urine (or a definite clinical picture) reveals putrefaction of the intestinal contents, the sulphocarbolates should be given until the pathologic condition is overcome. The stools under such medication will first

become black or extremely dark, then normal in color and odor. The symptoms produced by the intestinal conditions will disappear. To make assurance doubly sure, it might be well in such cases to give a very small dose of the indicated sulphocarbolate two or three times daily for a few days, yet we can conceive of but few conditions which would call for the continued daily use of any intestinal antiseptic.

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QUERY 5739.—"Nuclein in Pernicious Anemia." A. M. F., Michigan, asks what, in our opinion, might be expected of nuclein in a presumptive case of progressive anemia. "The nature of the final outcome of pernicious anemia," he remarks, "of course is recognized, but might it not be advisable to give nuclein a fair and square trial."

In true pernicious anemia you could hardly expect much benefit from the exhibition of nuclein, but in a progressive secondary anemia its use would be distinctly indicated, and the results might be very satisfactory. As a matter of fact, nearly all anemias are more or less progressive, and the earlier the underlying pathologic condition (the *causa causans*) is discovered, the better chance we have of putting a stop to the blood deterioration.

In a true progressive pernicious anemia there is a persistent tendency from bad to worse. The disease almost invariably ends fatally and treatment is of little or no avail. We can, of course, maintain elimination, strive to improve nutrition, and place the patient in the most favorable condition to resist the malady.

It is well to remember that there are three distinct categories into which cases of pernicious anemia may be grouped: (1) Those in which no discoverable cause for the hemolysis is ascertained, either *ante* or *post mortem;* (2) those in which the real cause is discovered on autopsy only; (3) those that are plainly attributable to some primary cause or condition. In many obscure cases of idiopathic anemia, the writer believes, the hemolysis originates in the gastrointestinal capillaries and is due to the generation of toxins formed in and absorbed from that tract. Apparently causeless cases have been found, at autopsy, to have been due to an obscure malignant disease, the presence of parasites, etc.

We suggest, doctor, that you make a thorough examination of your patient and report findings in detail, sending at the same time a specimen of blood to our pathologist. We shall then be in a position to make more intelligent comments.

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QUERY 5740.—"Uses of Thuja and of Echinacea." B. O. L., Louisiana, asks information regarding the therapeutic uses of echinacea and of thuja and the best preparations to use. He has read a great deal about these drugs in the different journals but possesses no textbook that treats of them.

We have taken pleasure in mailing a reprint of Dr. Candler's article on echinacea, a drug that is being more extensively used each day, and is undoubtedly one of the most potent systemic alteratives at our disposal. In septic conditions or wherever a depraved condition of the body-fluids obtains, it acts promptly and positively. Boils, phlegmons, carbuncles, abscesses, and even gangrene are benefited by its freer use. Tablets containing 1-2 grain of the concentration are now available and prove effective.

Thuja (arbor vitæ, white cedar) has been used extensively in the treatment of cancer, epithelioma, condylomata, chronic skin diseases, open sores, sloughing wounds, phagedena, gangrene, bedsores; and vegetations of all kinds, especially those upon mucous surfaces, yield to it readily. Hydrocele has been cured by injections of thuja. Howe used this agent exclusively.

Internally, thuja may be given advantageously in various urinary disorders, nocturnal incontinence, senile enuresis, relaxed conditions of the bladder, spermatorrhea, etc. When spermatorrhea is the result of overindulgence or masturbation, this agent is almost a specific. In treating conditions involving blood changes (especially where there is a cancerous condition), the beginning doses should be small and the drug administered three times daily. The amount may be increased, if necessary, to 1 dram every two or three hours. Such large doses are called for only in malignant

cases. Warts, excrescences, and many minor dermatoses disappear in a short time when 5 minims of thuja are exhibited twice daily.

Applied externally, thuja produces at first a sensation of smarting or tingling, and it is usually best to dilute it with one to three parts of water.

Lloyd's are unquestionably excellent fluid preparations. Besides specific thuja, a nonalcoholic extract (Long's thuja) is prepared, and it proves extremely serviceable. For internal use you will find echinacea and thuja thoroughly satisfactory.

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QUERY 5741.—"Desquamative Preparations." F. B. W., California, desires the formula of a good preparation causing superficial peeling of the skin.

An excellent preparation to produce a dermatitis to be followed by peeling off of the skin is a 20- to 30-percent solution of resorcin. It must be remembered, however, that weak solutions of resorcin promote cornification, while strong ones macerate the skin.

In dermatitis exfoliativa, alkaline lotions should be used in the early stages. In the later stages, apply oxide of zinc ointment; or urophen, 2 grains to 1 ounce of vaseline; or, also, urophen, 2 grains; compound tincture of benzoin, 10 drops; lanum, 1-2 ounce; vaseline, 1-2 ounce. Antiseptic oil and olive oil, equal parts, make another excellent application. As an alkaline application, nothing equals one of the menthol compound tablets dissolved in 8 to 10 ounces of water, to which 2 drams of glycerin may advantageously be added.

Salicylic acid will, of course, produce superficial exfoliation. Mercury bichloride may also be used. A lotion of corrosive sublimate, 1 : 1000 or 1 : 2000, may be brushed on the affected area once or twice a day until desquamation commences; or the following ointment may be used: Mercury protoiodide, 10 grains; ammoniated mercury, 10 grains; simple ointment, 1 ounce. The following paste is an excellent preparation: Betanaphthol, 10 parts; precipitated sulphur, 50 parts; vaseline, 25 parts; green soap, 25 parts. Spread upon the skin to the thickness of a dime. Leave *in situ* for fifteen or twenty minutes, then remove with a soft cloth and dust in with simple or borated talcum. The skin becomes inflamed, turns brown and peels off. Repeat the application daily until sufficient exfoliation has been secured. Desquamation can be hastened by adding 2 parts of salicylic acid.

Personally, we prefer a 20-percent solution of resorcin, allowing the dermatitis (which follows the application of the fluid two or three times a day for a few days) to subside under cold cream or resin ointment, 1 part; carbenzol ointment, 1 part; vaseline, 2 parts. If necessary, the resorcin solution may be applied again.

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QUERY 5742.—"Senile Pruritus." J. E. G., Maryland, is treating a man over 86 years of age who suffers very intensely from an itching which seems to be located just under the skin, no lesion being perceptible to the eye. It is worse after the least mental excitement. Calcium sulphide, the arsenic and other preparations have been tried with little or no results.

Senile pruritus is a condition which often proves rebellious to treatment. In every case it is essential to discover the underlying disorder of the body-chemistry. In the present instance we suspect an acidemia. Send a specimen of urine to some good laboratory. Examine the sphincter ani, which may need dilation. Keep the bowels active, the mouth clean. A good mouth-wash should be employed. A bran bath, made by adding five pints of bran to half a tubful of water is very soothing, while an epsom-salt sponge-bath (carbolated) is even more efficacious. To 2 quarts of water add 4 ounces of epsom salt and 20 minims of carbolic acid or creolin. Sponge the body from head to foot each night on retiring. In some cases the solution should be used hot. *Do not rub* the surface of the body afterward; just "dab" it dry with a soft cloth, and dust with borated talcum. Small doses of pilocarpine (one granule night and morning) often proves beneficial. However, as has already been pointed out, the cause must in every case be discovered and removed.

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Are Diseases Increasing?

THERE can be no question that the prevalence of certain diseases has increased during the last half-century. Conspicuous among these are diabetes and nervous diseases, these being due largely to the mental stress of a harder struggle for existence.

The increased consumption of alcohol and the free use of narcotics are also responsible for many morbid conditions unknown to our hardier forebears. But, in comparing the present prevalence of diseases with that of the past, there are several factors for which due allowance is often not made.

One of these factors responsible is that our forefathers died, as a rule, at a considerably younger age than their descendents; if they did not perish by the sword, they were mowed down from time to time by the plague or various devastating epidemics. In this way they escaped many of the diseases, not only of old age, but of advanced middle life. Again, it must not be forgotten that each generation represented to a much larger extent than is now the case the survival of the fittest. Many of the weaklings died in childhood.

The triumph of modern hygiene is that it has preserved a large proportion of these lives; on this we may fairly pride ourselves from the humanitarian point of view; but we must not forget that it has the serious drawback of lowering the general standard of health and of sapping the vigor of the race.

Another factor that must be taken into account in estimating the prevalence of disease is our vastly greater power of recognizing its presence, whatever the form.

What, then, is the cause of the multiplication of disease?

Is this multiplicity merely apparent, being due, first, to the progress of the natural sciences, and, next, to the new knowledge we have obtained with reference to pathology?

While the fact of this new knowledge is indisputable, this later hypothesis is insufficient to explain the absolute silence maintained by the most distinguished physicians of past years with reference to a great many of the diseases of our epoch. While biological science has made immense strides in recent years, we cannot deny to the physicians of ancient times a profound spirit of observation. Yet we look in vain for the least mention of diseases such as locomotor ataxia, progressive muscular atrophy, Parkinson's disease, Basedow's disease, general paralysis of the insane, and the different sort of cerebrospinal scleroses, all of which are frequent today.

It is, however, by no means safe to infer, because no mention is to be found in old writers of diseases of obscure and perplexing symptomatology, that they did not exist. They undoubtedly existed but were not recognized.

Where progress has been made, is in the prevention of acute infectious and preventable diseases, so that the average age at death has been greatly extended.

We can prevent to a great extent the diseases incident to middle and advanced life. What is needed, is to teach the people how to live, and by judicious early treatment arrest disease at its inception.

Men should be taught as if you taught them not,
And things unknown proposed as things forgot.
—Pope.

THE ACTION OF PHYSOSTIGMINE

In an exchange of homeopathic proclivities, I find this curious case:

"A man reports that he has been an invalid since childhood; he is now 56 years of age, has tried at least one hundred remedies for his ills, with less benefit than he has just secured from physostigma. Thinks it must have struck the cause, but just what, unless it is spinal disease, he can not understand. He says: 'I feel stronger and more self-poised, with a wonderful lessening of nearly all aches, pains, and disabilities, than I have for years.' "

Commenting on the case, the homeopathic editor takes a page and a half to say that he does not know why the drug did the man good. Physostigma's provings would require nearly sixteen pages to detail. Looking through an unabridged materia medica, an inexperienced man would think that nearly every drug covers the whole range of human ills.

Nevertheless, there is, in the brief account given, material for a close approximation to a diagnosis. The man had suffered, from childhood, a great variety of symptoms—this includes most diseases that would have gotten well or killed him long since. Constipation and fecal toxemia occurs as the most likely cause of his sufferings, and since physostigmine stimulates intestinal peristalsis, the *raison d'être* of the relief is apparent.

Why go round Robin Hood's barn in search for an explanation when the obvious one is right under your feet to be stumbled over? The trouble is, that constipation is a too common everyday affair to be thus easily accepted. Disease and remedy must be things far distant, occult, mysterious, or the crowd will not gape in awe at the doctor's wonderful learning. Our confrère mentions, in discussing the case, tetanus from injuries, chorea, general emaciation, paralysis agitans, congestion of the spinal cord, spasms, myopia, pain after using the eyes, congestion of the eyes, and spasmodic action of the heart, as favorably influenced by the drug; but these are only conditions, and their ultimate cause may be anything from worms to spinal disease. Not one of these, seems to fit the case. Chronic "constipation" covers a multitude of sins!

"I could name lots of conscientious physicians in the small towns, and even at the cross-roads, who are today doing scientific work that is not appreciated at its full worth by the community in which they live. But I hope some day to see the people wake up to a realization of their duty to the country doctor—God bless his soul."
—Dr. V. Berry, in The Oklahoma Medical News-Journal.

"CONSISTENCY"—ERGOT

There are some people who would like to see us sacrifice truth to appearances, utility to rule. Because we advocate the alkaloids, they expect us to favor nothing else. Since we believe that it is usually best to separate the single active principles and use them, they want us to advocate this idea as to all plants. But this we can not do, for the reason that some plants do not permit of it. We have, therefore, urged that the best means of securing the beneficial effects of cannabis, for instance, is to use a good extract of that plant; of rhubarb, the powder; of ergot, the aqueous extract. Until the chemists have given us pure active principles that afford the action we require, we must content ourselves with using the preparations named, and similar ones, with all their recognized disadvantages.

In *Merck's Archives*, Livingstone gives us another of his papers on ergot. Hi

experience of over thirty years leads him to exactly the same conclusion at which we have arrived, namely, that the water-extract is the best preparation presented thus far. Like ourselves, he has tried the numerous active principles offered, but found none satisfactory when the clinical test was applied.

Standardization by means of the cock's comb has not remedied the uncertainty, for there is too wide a biologic chasm between the gallinaciæ and mankind to permit observations on the bird to be transferred to humans, without question.

That ergot contracts uterine fiber has been known clinically for centuries.

As to the effect of ergot on blood pressure, Livingstone believes it differs with conditions. If there is an abnormal state of any circulatory area, ergot regulates this both ways. If this area presents dilated vessels, ergot contracts them; if its vessels are contracted, ergot acts—presumably—on the vessels of the remainder of the circulation, and by contracting them, forces blood out and restores equilibrium. This is a comprehensible statement, at least.

The author claims, however, that ergot reduces vascular pressure when too high. The limit of action for ergot is functional deterioration; it can not act on degenerated tissues. These views are deduced from clinical observations. They can not be tested by physiologic experiment when there is no abnormal condition on which the ergot could act.

Comparing physiologically tested preparations clinically, he does not find the two to correspond. He quotes Wood and Hofer, who also found that the toxic power of ergot was not a criterion of its physiologic activity. He does not accept ergotoxin, even if it does bring about a "long-enduring contraction of the walls of the arterioles."

Here we have the lines drawn. Dr. Livingstone attributes to ergot a property little short of marvelous—that of restoring circulatory balance by contracting dilated vessels or relaxing spastic ones. We get this double action from the union of aconitine and digitalin; and, so, if ergot affords the same, we must conclude that the latter contains two principles, one a relaxant, the other a pressor. We can not believe any one single agent can accomplish both. If this should prove to be the case, we can readily comprehend how each principle may be appropriated by the cells that require it to restore equilibrium.

But ergotoxine is not ergot, any more than morphine is opium, or strychnine is nux vomica. Ergotoxine has a definite property; two of them, since it also contracts uterine muscular fiber. It will be employed for these two purposes whenever and in whatever disease we wish to induce the effects that principle is capable of producing. It is another condition-remedy, not a disease-specific. Some day, we may confidently hope, the relaxant principle of ergot will be isolated, and then we need not give the entire drug and trust to luck, but use whichever principle we may need. Meanwhile we have in aconitine, veratrine, gelseminine, and especially digitonin, relaxants admirably qualified for such work.

Dr. Livingstone has imbibed some of the "whole-drug" fallacy, having failed to see the important point to which his observations tend. He ignores the variable powers of drugs depending upon variable productions of antagonistic alkaloids. Nevertheless, his observations carry him along the road we have traveled, and reach conclusions that harmonize with our own.

Practice has frequently opened the way to theory.
—Abraham Jacobi.

THE RED-CROSS SEAL CAMPAIGN

As in former years, so this year the National Association for the Study and Prevention of Tuberculosis intends to put red-cross Christmas seals on the market, which are to be used in addition to postage stamps on letters, as a means of sealing packages, Christmas presents, and so forth, and the proceeds of which will be employed in the struggle against the great white plague.

This pleasing mode of raising money for a meritorious work, if the writer remembers

correctly, had its inception in Sweden several years ago, and has now extended through practically all civilized countries, being accepted by most people as a simple and attractive means of adding their mite for the good cause. The cost of the individual stamps is minute, but the sum total of the revenue derived is considerable. We notice from press dispatches that in 1908 more than $135,000 was realized from the sale; in 1909, nearly $225,000; in 1910, nearly $310,000. The slogan of this year's campaign is, "A million for tuberculosis through red-cross seals!"

Let us all get together and encourage the good work in the matter of red-cross seals. The sacrifice entailed is small; the benefit is great, because the result of concerted action. Tell your families and tell your clients of this matter, and encourage them to buy and use the seals.

Do not mistake mere noise for enthusiasm; the ass has a beautifully sonorous voice, but everybody knows he is an ass just the same.

HEMSTITCHING MEN: A SURGICAL FANTASY

We learn from a Minneapolis newspaper that Dr. E. Wyllys Andrews, of Chicago, has invented a surgical sewing machine. This does away with the handling of the needle and thread by the operator, and facilitates and hastens operation, and thus relieves the patient sooner from the dangers of prolonged ether narcosis.

Unfortunately the item does not add that Dr. Andrews has also devised the necessary apparatus for rolling the patient out to such a flattened condition as will enable him to be deftly passed beneath the needles of the sewing machine. When this feat is accomplished, we shall soon see much improvement in this painful portion of the surgical technic. Medical journals will soon teem with articles in which the various merits of hemstitch, crossstitch and other devices hitherto only known to the fair sex will be presented and hotly debated at medical societies. We shall hear of the peritoneum being puffed, hemmed, felled, gored and otherwise fancifully manipulated, while the greater omentum will certainly be the better for artistic shirring. A too enterprising hernial protrusion, it may confidently be predicted, will, in that happy era, be restrained by quilting.

But we are getting beyond our depth; and having floundered along thus far, beg leave to submit the remaining discussion of the question to the doctor's wife. Undoubtedly that worthy personage has long been persuaded that her husband's ear would be improved by a band of passementerie, and perhaps some other parts of his anatomy might be the better for judicious trimming. Undoubtedly, one effect of the innovation will be greatly to enhance the importance of woman in medicine, for in this department she can certainly give us cards and spades, and beat us out of our boots, if not to a frazzle.

PHARMACOPEIAL CHANGES

The Committee of Revision of the United States Pharmacopeia has given out a preliminary list of the remedies to be retained, the remedies to be dropped, and those to be added. This list contains some surprises—and some things which seem hard to explain. For instance, among the remedies to be admitted we find picric acid, which has been in common use for the treatment of burns for we do not know how many decades. Our old friend, Hoffman's anodyne (spiritus aetheris compositus) is to go; so is fluid extract of digitalis, wine of ipecac, cerium oxalate, and a whole lot of the old favorites, among them such popular (!) oxytocics as pennyroyal, savine and that old friend (?) of the unfortunate, the pill of aloes and myrrh.

Among the articles to be admitted we find apiol, aspidospermine, calcium chloride, calcium glycerophosphate, calcium lactate, creosote carbonate, erythrol tetranitrate, phenolphthalein, quinine and urea hydrochloride, sodium perborate, sodium glycerophosphate, trioxymethylene (paraform), theobromine sodiosalicylate, and diacetymorphine (heroin). Query: Why were not most of these admitted years ago?

There are other additions, of course, and doubtless there will be still others, but on the whole the list is an exceedingly short

one. We look in vain for active-principle remedies like arbutin, boldine, brucine, bryonin, emetine or its salts, the digitalis glucosides, and other substances of this class, so familiar to readers of this journal. We would respectfully urge their consideration by the committee, as well as such things as calcium phenolsulphonate (the sodium and zinc salts are official), copper arsenite, and a larger number of the salts of quinine, strychnine, mercury and iron. Certainly the arsenates of iron, quinine and strychnine are as worthy as medicinally as the tincture of asafetida or "sassafras medulla."

Why also should not the Pharmacopeia be brought down—or up—to the level of the men who should use it, i. e., physicians and pharmacists. There may be justification for the adoption of such terms as diacetymorphine, acetphenetidinum and sulphonethylmethanum, yet certainly the dignity of this great work would not be compromised if the committee would deign to add here and there a word of explanation, that he who reads may run *speedily* about his business.

We shall watch with interest the progress in the making of the ninth edition of the United States Pharmacopeia—a work of which every physician in America should show an active appreciation.

"Kiver yo' house 'ginst a rainy spell and de Lord'll keep off de wedder."—Negro Proverb.

THE TREATMENT OF SYMPTOMS

So much has been said about the duty of making an accurate diagnosis before attempting any scheme of treatment, and the danger, yes, the "criminality" of adopting any other course, that it is refreshing to read an article which punctures this bubble, and brings the question down to the hard earth of common sense.

Of course, the physician should arrive at the underlying cause in every case just as soon as he possibly can, but, if he waits to treat his patients until he secures all this knowledge, a goodly share of them will be in the hands of the undertakers before he has found out what the trouble is—or was.

Dr. O. Victor Limerick, in the September number of *The Physician* says: "The very best physicians do, in fact must, treat symptoms. The truth is that the skill of a clinician is often determined solely by the extent of his ability to alleviate certain symptoms." Continuing in this vein, he adds:

"It is conceded, of course, that no sane practitioner ever, under ordinary circumstances, rests his efforts on the mere alleviation of dangerous or distressing symptoms; he is mindful of the fact that the ultimate welfare of the patient invariably requires that radical treatment be instituted, and he acts accordingly. But he is also aware that symptoms alone are frequently a source of grave and immediate danger to the patient, and, for this reason, they merit the most painstaking attention. Moreover, he knows perfectly well that there are occasions when days of careful observation are necessary before a positive diagnosis can be reached.

"A patient might be found in a state of syncope, the cause of which is, say, obscure. Would any sensible man, under such circumstances, neglect the treatment of the cardiac or respiratory symptoms merely because of his inability to at once determine its underlying cause? Hardly!

"Another might be found in the agonizing pain of hepatic or renal colic. Would any sensible man, under such circumstances, neglect this distressing symptom and at once prescribe for its underlying cause? Hardly!

"Another might be found suffering intense headache due to anemia. Would any sensible man, under such circumstances, withhold an analgesic and at once prescribe a hematinic? Hardly!

"Another might be found suffering agonizing dysmenorrhea due to obstruction of the cervical canal following a flexion. Would any sensible man, under such circumstances, withhold an analgesic and merely advise an operation? Hardly!

"Regardless, then, of all that has been, is being or will be said by self-centered opportunists on the subject, the fact remains that symptoms *are* treated. Furthermore, the practitioner that *does* treat

them whenever occasion warrants is a Godsend to the sick-chamber, a blessing to mankind, and an ornament to his profession."

From the "Amen" corner we loudly voice our endorsement of every word which Dr. Limerick says. When people are sick they want a doctor who will do something, do that something intelligently and be quick about it. Amen! Brother, say it again!

Dr. Limerick's article on "Gallery Play" is only one of the many good things in this, the second, number of *The Physician* which is published at 44 E. 31st St., New York City.

The distant mountains that uprear
Their solid bastions to the skies
Are crossed by pathways that appear
As we to higher levels rise.
—John G. Whittier.

SOME UNTOWARD FACTS REGARDING FLETCHERISM

Perhaps no department of medicine, in practice, ignores so completely the old established principles of biology and physiology as dietetics. Albeit, it is well known that digestion does not entail the proper absorption, and hence the assimilation, which prevents intestinal toxemia; while it is definitely settled that the human body is wrapped around a tube, and what is in the tube is not yet in the body; while it is also established that starch and sugar digestion takes place partly in the mouth, protein chiefly in the stomach and partly in the intestines, while starch, sugar and fat are digested chiefly in the intestines; still, indigestion is regarded as of mouth or stomach origin, hence the popularity of mastication and pepsin nostrums for dyspepsia, irrespective of its character.

Furthermore, digestion, which is the preparation of food for absorption and assimilation, is regarded as the end and not as the means. All sorts of morbid conditions charged to indigestion are often due to fermentative changes in food that has been properly digested in too great quantities for an organism unsuited for its absorption and assimilation. Although many states, like scurvy in children, hepatic and renal instabilities in the insane and neuropaths, result from monotony in diet, and while many blood-vessel degenerations and strains result from hyperacidoses and toxemias produced by undue use of carbohydrates, still the old myth that all these states are due to an undue meat diet serenely dominates dietetics, despite all physiologico-chemic revelations to the contrary.

One popular fad which ignores these physiologic axioms is Fletcherism. The proper mastication of food is prescribed as the nostrum for all assimilative and absorptive digestion disorders. One natural result of this fad is the excessive or disproportionate use of starchy and sugary foods. These substances, as has already been pointed out in The American Journal of Clinical Medicine, are very frequent sources of paralyses, occurring in persons who do not eat meat excessively and who abstain from alcohol.

The rationale of such paralysis is simple. When people enter on the climacteric, between forty-five and sixty, there is a potentiality of blood-vessel changes, and a general upset of the constitution from diminution of function. If there be no excessive strain at this time the new physiologic balance is attained and the organism resumes its usual health. A mental or physical strain at this time is apt to affect the blood vessels and elimination through its influence on the liver and kidneys. If diet be adjusted to elimination no strain results, but seeming facility of digestion, as the supposed result of thorough mastication, is apt to lead to hemic hyperacidity, usually resulting through the preponderance of carbohydrate food, which lends itself readily to fermentative changes and hyperacidity; and, also, this dietetic habit results in an indicanemia, through the morbid ready absorption of waste protein. These absorbed materials are great sources of blood-vessel strain.

As reliance on Fletcherism alone produces not only these, but a tendency to monotony of allegedly easily digested foods the untoward effects of Fletcherism are liable to be peculiarly dangerous at the periods

of stress, when the need for elimination is great, while at the same time eliminatory powers are decreased. Man, not even primitive man, has the eliminatory powers of the lower animals. To an increased size of brain and extremities have been sacrificed hepatic, pulmonary and intestinal possibilities. Hence, he needs peculiar care at these periods of stress.

Thorough mastication is desirable, but it is not a panacea. In whatever manner we may eat our food it is desirable, and at periods of stress it is essential, that it be adjusted in quantity to the needs of the body, and nicely proportioned between protein, carbohydrates and fats, for the necessities of the metabolism.

Like all other fads, Fletcherism becomes dangerous, in so far as it is accepted as a cure-all and as a prevent-all. There is almost as much peril in the physical-culture nostrums, in the hydriatic nostrums, the psychic nostrums, in starving-cures, mastication-cures, and all the other present-day pseudo-medical eccentricities, as there was in the alcohol "bitters" and other almanac-advertised fakes of a generation ago.

People whose digestive apparatus and eliminative organs are going wrong are not good subjects for the medical tinker. They need the careful, individual attention of the best obtainable physicians.

Ambition is a dynamic force which, coupled with energy and clean living, will bring success to any man.

WHERE IS WYOMING MEDICINE?

The medical profession of Wyoming has nothing to say. Nothing happens out there. No disease is peculiar to the state or presents local features worth noting. No Wyoming surgeon runs tucks in anybody's peritoneum or suggests modifications of the Murphy button. No enterprising member seeks to arouse local pride or to develop local interest by founding a medical journal.

To keep the name of the commonwealth alive, a Wyoming Section has been added to *The Western Medical Review*, the journal of the Nebraska and Wyoming State Medical Societies.

Noting this interesting fact on the front cover of said journal, we turned to the Wyoming Section, to see what the medical profession of this wild and woolly region had to offer for the good of the order. The Section consisted of nearly half a page of heading, a page of abstract of Tom Williams' (Washington, D. C.) paper on poliomyelitis, and a half-page abstract from the *J. A. M. A.* on schools of Austria. That's all.

But hold! We begin to recollect. There was a massacre in Wyoming—and of course that explains it. The doctors of Wyoming are dead ones. We drop a briny tear over the pall and tender our sympathies to the surviving neighbors in Omaha, Nebraska.

We must learn to suffer what we cannot evade; our life, like the harmony of the world, is composed of contrary things—of diverse tones, sweet and harsh, sharp and flat, sprightly and solemn; the musician who should only affect some of these, what would he be able to do? He must know how to make use of them all, and to mix them; and so we should mix the goods and evils which are consubstantial with our life; our being cannot submit without this mixture, and the one part is no less necessary to it than the other.—Montaigne.

EUCALYPTUS IN SCARLET-FEVER, ALCOHOL IN DIPHTHERIA

Dr. Robert Milne, physician to a hospital for children in London, reported a new treatment for scarlet-fever. He applied oil of eucalyptus to the skin and phenol to the throat, keeping the child enveloped in an atmosphere charged with eucalyptus. The suggestion was received with savage disapproval by his colleagues; the only speaker who did not condemn it claimed the method was old, having been taught by his father. Innovations are probably unwelcome in England, and one who contemplates introducing a novelty there should be prepared for every possible form of opposition.

Dr. Millard of Leicester reported 100 cases treated by Milne's method. He found the period of infectivity was not shortened to anything like the extent claimed by Dr. Milne, or to any appreciable extent; he could not satisfy himself that complications and sequels were appreciably diminished, and there was some reason to think

that the number of albuminuria cases was increased. This may not mean much—some men are "not satisfied" as to the efficacy of treatment until a brick house and lot falls on them. Leicester, be it remembered, is the lair of the antivaccinationists.

In another respect Dr. Millard's report, as quoted in *The Lancet*, is more definite. Diphtheria is treated in the Leicester hospital without alcohol.

Formerly it was supposed that the tendency to heart failure in this disease rendered alcohol imperatively indicated in large doses. The discovery that heart failure here is due to nerve degeneration from toxemia led one to believe alcohol could not be of real benefit. Woodhead then determined that in horses alcohol interfered with the establishment of immunity, by which nature cures all zymotic disease. Hence alcohol seems to be actually contraindicated, and it was not employed in the Leicester hospital during 1910. Only about half the cases of diphtheria were removed to the hospital, but these included the most serious ones. Antitoxin was used. Out of 114 cases, there were eleven deaths, but it is uncertain how much of the good results was due to the disuse of alcohol.

In America, since the day when N. S. Davis proclaimed that alcohol was unnecessary in the treatment of disease, there has been a steady approximation toward his position. While alcohol still has its advocates, the belief in its value is by no means general, and its opponents can not now be looked upon as heretics. One by one the applications once made of it have been discontinued, and now if one advocates this potent spirit he does so apologetically.

When we see the intensely insular Briton assume such an attitude toward his colleague, we are not surprised that he ignores the brilliant discovery of a foreigner, Dr. Ussher, an American medical missionary, as to the control exerted over scarlet-fever and other infections by saturation with *calx sulphurata*. This was too radical for John Bull, revolutionizing the whole conception of therapeutics in infections, and necessitating a realignment for which he would require half a century to prepare himself.

How did he ever come to accept vaccination, anesthesia, and the modern germ theory?

I never let an idea escape me, but write it on a piece of paper and put it in a drawer. In that way I sometimes save my best thoughts on a subject.—Abraham Lincoln.

IS PELLAGRA A DISEASE OF THE ALIMENTARY TRACT?

There is an interesting paper upon this topic, by Dr. J. Clarence Johnson of Atlanta, Georgia, in the "Tropical Medicine" number of *The Southern Medical Journal*. Dr. Johnson has had considerable experience with this disease, and presents in his paper a tabulated study of twenty cases. A careful review of the symptomatology convinces him that the disease is distinctly one of perverted metabolism, having its first expression in the epithelial structures of the alimentary tract.

Of special interest is the fact that in these 20 cases, only 6 had free hydrochloric acid in the gastric secretions. In these 6, with one exception, the eruption was slight; but in this exception the eruption was severe, and there was the highest acidity and the least nervous disturbance. In 14 cases lacking hydrochloric acid, diarrhea was present. In the 8 cases with absence of hydrochloric acid, but presence of rennin, the diarrhea was less frequent, less severe and less persistent. In no patient with hydrochloric acid was there diarrhea, except one, due to a transient cause. The membranous deposit in the mouth, with one exception, was present only in those lacking hydrochloric acid. In the patients with atony and ptosis, 3 had hydrochloric acid; 2 had rennin without hydrochloric acid. The first recognizable symptom in 14 cases was directly referred to the alimentary canal. In only 3 were sore hands the first symptom, and in all of these there was a previous history of indigestion in some form.

Dr. Johnson believes that the absence of hydrochloric acid is an important factor in the disease, not necessarily etiologic, but at least significant of its gravity. The eruption he thinks of less significance than that ascribed to it by many.

Dr. Johnson has had excellent success in the treatment of these cases with a mixture of potassium chlorate, tincture of chloride of iron, and pepsin, used in connection with 1-2 grain doses of calcium sulphide, which are given three times a day, and in severe cases somewhat oftener. It is significant that calcium sulphide was also used with success by Dr. Mizell of Atlanta, whose theory concerning pellagra and his method of treating it are presented in these pages, this month. See page 1145.

OURSELVES AND THE LAITY

Dr. John B. Murphy in his presidential addresss before the American Medical Association suggested that the public has a legitimate curiosity concerning the methods of the doctors. Since general practicians decline to gratify this, people turn to the quacks who pretend to take their patients into their full confidence. Dr. Murphy also said that the layman does not like the "mysteries" of the medical profession and that many people manifest a marked preference for the physician who discusses their maladies freely and who tries to give them an intelligent idea of the purpose of the treatment which he prescribes.

The last assertion is undoubtedly correct, and it is quite proper that, wherever possible, physicians should explain to their patients, as much as may be expedient, although it is hopeless to try to explain the "why" of the particular procedures adopted; yet if Murphy has really said that the layman does not like the mysteries of the medical profession and thereby suggested that the quacks do not have mysteries, he either misstated facts or must have been misunderstood by the reporter, because the mysteries of the quacks are deep and insolvable. It is well known that they impress the patients who fall into their nets by overpowering them with an appearance of profound learning, and smother them with a profusion of technical terms, although they may appear to take the patients into their confidence.

Dr. Murphy is right in suggesting that medical lore should in part be popularized. Every sensible physician has acted upon that advice for many years, and the question which has so frequently been put in Clinical Medicine, whether we doctors should take our patients into our confidence, has to a certain degree always been answered affirmatively. It is undoubtedly wrong for a physician to pose as a great gazabo and to tell his patient "Thou shalt" or "Thou shalt not" just simply because I, the Great, say so. That was the kind of procedure that kept the laity so wofully ignorant of the simplest problems of hygiene and domestic medicine. It is far better to teach and educate the people in the elementary principles and to have them cooperate with us intelligently, rather than render blind obedience, by doing which they may frequently make mistakes, because of their blind obedience, when emergencies arise which we could not foresee and which would lead us to modify our directions.

Do not be discouraged if your early education was neglected. Ambroise Paré. the father of modern surgery, knew neither Latin nor Greek, his French was crude and provincial, and he received his training not in the schools but as an apprentice to a barber-surgeon; yet Paré became the greatest surgeon of his time, and left an immortal name.

PROTECTIVE PERIOD OF VACCINATION

There is no room for sentiment, theory or faddism in the army. Stubborn facts rule in matters military. If vaccination is of value in preventing disease, the soldier must be so protected. In *The Military Surgeon* for July, Lieut. Col. C. E. Woodruff, U. S. A. Medical Corps, discusses smallpox and vaccination. His conclusions, based on a study of his official experience, are:

1. One good vaccination in three places on each arm, in infancy, generally but not always confers lifelong immunity against vaccinia and smallpox.

2. Cases taking smallpox or revaccination show, by the scars, that the original vaccination was not thorough as a rule.

3. There are no cases of smallpox on record after two undoubted successful vaccinations.

4. No persons are immune against vaccination. Failure means dead lymph,

improper application or removal of the live virus.

5. If an adult has two good scars from infancy and a proper vaccination fails, he should be held immune, but to cover exceptions, revaccination should be repeated, though not oftener than every three years.

6. If good scars show two vaccinations, at least one in adult life, the man is immune and needs no further vaccination.

The method of single vaccination is not satisfactory. The best results follow the three insertions on each arm.

Never judge a man by the umbrella he carries; it may not be his.

GENIUS AND INSANITY

It is an exceedingly difficult matter to draw the line which separates the sane from the insane. When we study the diagnostic traits of mental diseases, we begin to doubt whether some of their associates whose mental processes we have hitherto held in the highest respect are not, to put it mildly, in questionable condition. If this is true of the average man how much more of the martyrs, heroes, and devotees, whose acts make history?

For example Martin Luther had hallucinations, Peter the Great and Napoleon the First were both epileptics, as was Julius Caesar. Rapheal was affected with suicidal mania, Richelieu, on occasion, imagined himself a horse; Descartes was followed by a spectre; Cromwell was a hypochondriac and had visions; J. J. Rousseau was a melancholy madman; Swedenborg imagined that he went to heaven on a white horse; Mohammed was an epileptic; Dean Swift was partially insane by inheritance; Shelley had hallucinations; Charles Lamb and his sister were both victims of insanity; Coleridge was a morbid maniac; Milton was of a morbid temperament, modern ideas of hell being formed by his descriptions of a diseased imagination.

But probably the most marked example of insanity combined with perseverance, and bravery unequaled in history, is that of Joan of Arc, who gave us the astounding picture of an ignorant peasant girl going about with a standard in her hand, announcing to the world that she would rescue France from her enemies because the Virgin Mary appeared to her every day and commanded her to do so. There is not an alienist living today who would have hesitated a moment as to the question of her insanity.

Many a person whose mental poise is badly balanced becomes eminent through a combination of circumstances and the time favorable for radical measures, joined to an ignorance of the forces he combats against. The mere audacity of the act stamps him as madman or man of genius, as you please; while the results, whether good or bad, depending on the train of circumstances following the act, canonizes him or relegates him to oblivion. The day for genius has passed with the ignorance of past ages. The hard-working, intelligent plodder, whose temperament is a well-balanced one, is the man of the hour.

PNEUMONIA AGAIN—AND CALCIUM

This time it's lime. J. R. Mitchell says so, in *The Medical Record*, and both Mitchell and *The Record* are mighty good authority. Mitchell is a teacher of chemistry in the Fort Worth Medical College, and he looks at disease from the chemist's standpoint. That is not saying or suggesting that his standpoint is a disadvantageous one or that what he sees isn't there. But these things must be considered in judging his theory.

Calcic salts have been used in pneumonia before. Brunton gave the chloride as a heart tonic, Barr to thicken the sputum, Crowbie to abbreviate the duration, Moir to afford relief, Couldry to stop headache and slow the pulse, Selkirk because lime-workers seemed immune. Mitchell seeks to reason out, on chemical lines, why these things are so. He finds the pneumococcus avid for lime, flourishing on it, and perishing when the supply is exhausted. Fact one.

The excised heart may be kept beating by perfusion with water containing lime, and stops when lime is withheld. Fact two.

The urine of pneumoniacs contains no chlorides—or lime. Fact three.

The pneumonia stomach is hyperacid with hydrochloric acid—the chlorides are retained and form acid, causing gastro-intestinal troubles. Fact four.

Inference: That the hydrochloric acid is formed plentifully to snatch the needed lime from the food and restore the calcic balance to par.

Deduction: That much of the pneumonic symptom-totality is due to lime starvation, that element being purloined by the pneumococci because demanded for systemic defence.

Development: Pneumonia is a coccus invasion, the symptoms, including dyspnea, being general in origin, not local. Pneumonics have dyspnea without consolidation. The latter is simply a natural measure to establish a pulmonary filter for straining out the hemic parasites, which occasion crisis. Here, in the solidified area, leukocyte and parasite fight out the battle. Chills whip up the venous current; fever hinders coccal propagation; thirst indices an increased supply of lime in the water drunk. Anorexia prevents withdrawal of blood from the firing line to supply digestion; the angry, bounding pulse forces more blood through the lungs with phagocytic reinforcements. Garrison and enemy both avidly eat up lime and, since that is exhausted, the blood refuses to coagulate. Attendant pleurisy fixes the lung, favoring phagocytosis. Calcic poverty occasions convulsions. "Nothing remotely resembling a toxin has been isolated from the cultures of the pneumococcus. The toxemia is simply an expression of calcium poverty," avers Mitchell. Death is due to calcium poverty. Pulmonary edema is due to permeability of tissues from lack of lime.

With these premises established, it is evident that the symptoms we have ignorantly attempted to combat are the patient's best friends. Don't use local treatment, expectorants, inhalations or pulmonary antiseptics. Just give lime, more lime, and add lime; with rest and support. Cold baths and air are "harmful and brutal." "Pulmonary antisepsis ranks with the use of intestinal antispetics in typhoid—both provoked by a hastily assimilated knowledge of pathology." "The fever needs no special attention." "If pneumonia often winds up an alcoholic debauch, then alcohol often winds up a pneumonic debauch." "Guaiacol increases lung secretion or predisposes to edema of the lungs." Lung antisepsis interferes with phagocytosis. Quinine is undeniably harmful, causing delayed crisis, and paralyzing the leukocytes.

The curative treatment is a diet of milk and lime water, besides calcium chloride, 10 grains every three hours.

Dr. Mitchell's argument is logical, and admitting the correctness of his premises, and their comprehensiveness, his conclusions are correct. But after all theorizing in medical matters, there comes the final test, the touchstone, of actual application.

If he is right, the others are wrong; if his treatment is right, its application must give better results than the wrong and injurious methods they employ.

Dr. Mitchell reports 33 cases treated on his system, with 2 deaths, a mortality of 6 percent. Both deaths occurred within twelve hours after admission to hospital, "which means before the treatment was fairly instituted." But when we compare this result with statistics of Juergenson's treatment—raw beef, red wine, cold baths, and maximal doses of quinine—all most harmful according to Mitchell—we find Juergenson's results rather the better. His figures are also more significant in that they number many hundreds of cases. His few deaths were those of patients not expected to recover, of terminal pneumonias, etc., and excluding these, he had practically no deaths. Pretty good for a "radically wrong" method, with remedies "altogether harmful!"

Then there's our own method—elimination of the factor of fecal intoxication, and regulation of the vasomotor conditions so as to keep the patient comfortable, and his fever and other symptoms under control. Scarcely ever do we hear of a death under this treatment, so it can not be exactly radically wrong.

Nevertheless Dr. Mitchell's proposition commends itself to our judgment far more than Juergensen's and we are disposed to

favor the former to a greater degree than the foregoing criticism would imply. We should hardly go so far as to advise increasing the fever, exciting the bounding pulse to still loftier saltations, irritating the pleura into more extensive inflammation, or exciting more widespread infiltration of the blocked lungs. Still, we would advise the systematic administration of calcium salts in full doses, in addition to the measures common sense and experience alike commend. If to the calcium we add iodine, which seems to have a directly antagonistic action upon the pneumococcus, a real addition may be made to pneumonia therapy. And we cannot give up the belief that measures that render the patient more comfortable, enabling him to rest, sleep, eat and digest, do him good, even if we are unable to demonstrate the benefit by chemical ratiocination.

Just one point more. Dr. Mitchell's side-slap at intestinal antiseptics shows he has no comprehension of the reasons for their use. He concludes we give them to "kill the bugs," and lets it go at that. Yet, if he were asked if he would employ typhoid stools as dressings for cutaneous ulcers, he would scarcely reply affirmatively. Clinical evidence has established the efficacy of the intestinal antiseptics so firmly that their advocates await complacently the explanation of their efficacy well content with the results they obtain.

Wisdom is knowing what to do next; Skill is knowing how to do it; and Virtue is doing it.—David Starr Jordon.

THE TYPHOID FLY: A SUGGESTION

People are at last awaking to the menace of the housefly. It has been proved guilty of transmitting typhoid fever, and is strongly suspected of agency in the spread of diphtheria, the exanthemata, erysipelas, gangrene, and probably tuberculosis. The designation of this nuisance as the "typhoid fly" is useful in calling public attention to one of the perils it brings us, but objectionable in that the term seems to limit the fly's pernicious activities to a scope much narrower than really is the case.

The appreciation of an evil comes first; then the means of abrogating it are to be considered. Screens and other means of excluding the insect from our homes are a matter of course; the destruction of those that succeed in finding entrance follows. The nuisance that destroys the pleasure of taking meals in the open air is more difficult to handle. For this it is desirable to find more radical remedies.

Since the fly breeds in manure and similar filth, the use of fly-proof receptacles for such materials is advisable. One careless person opens the way to countless millions of flies, however, and this alone is rarely attended to in an effective manner. Recently visiting a town in southern Illinois, the writer mentioned the scarcity of flies, and was informed that there had been placed in the streets an effective form of fly-trap that had captured incredible numbers of the pestiferous pests.

These are effective to a certain extent, yet not altogether. We must devise methods in which people will take more direct personal interest. Men are surely as lazy as they dare be, and need the whip or the lure to inspire them to activity.

When the Turks ruled the island of Cyprus they found it overrun with locusts. Their remedy was effective—they offered to buy the locust eggs at a price that set the entire surplus population to hunting energetically for the eggs. The taxes were rather excessive the first year, but as the Turk did not pay it *he* did not worry. Next year locust eggs began to become scarce, and it was not many years until they were no longer to be had, the insect having been eradicated from the island.

Those who are familiar with the collection of drug-plants in the United States know that the demand for them leads to their eradication. The collectors of ginseng and golden-seal have each year to go farther afield for their supply, while the price has steadily risen. This stimulates the search, and as a consequence nearly the entire eastern half of the United States has been denuded of these plants.

In one of the consular reports there appeared an item stating that a number of barrels of dried flies had been shipped from Germany to the United States. Inquiry developed that these had been used as

chicken feed. Chicken fanciers know that these fowl require animal food, and will starve if it is not furnished them. Chickens that are confined and fed on vegetable food alone soon begin to eat each others' feathers to satisfy the craving for the nutriment they require, although their troughs may be well filled with vegetable food.

There is no necessity of importing flies for this purpose. If they have a market value, as seems to be the case, this should be known; and the use of such fly-traps as would capture them would be stimulated. This seems to be the most definite proposition yet made in the way of abolishing the fly nuisance. Give the beast a value that will sufficiently stimulate the people in general to use the fly-traps. A single season would go far toward accomplishing the desired object.

Do you sometimes say that luck is against you? It isn't so. If you fail, it is not a matter of luck any more than when you succeed. A man gets in this world what he goes out to get. If he anticipates failure, talks failure, fears failure, what can he get but failure?

FIGHTING WITH GOLD BULLETS

We see, in the press dispatches that "bullets of solid gold were used by the Yaqui Indians in fighting against Porfirio Diaz in the recent Mexican revolution." It is related that in the hospitals, where many of the wounded soldiers underwent operations, the discovery of the golden pellets was a common occurrence, yet this cheering intelligence is tempered by the statement that "few patients received enough of them to pay the doctor bills."

Even with the uncertainly regarding the weight of those golden bullets there are many physicians in this country who would welcome a wholesale immigration of "Yaqui Indians." If they could be persuaded to use some of their ammunition upon the thousands of generous (?) citizens and citizenesses who demand the doctor's services, but who, once that service is rendered, are unwilling or unable to give anything in return for it, then a bounty might be paid for every new comer. There are few communities which could not profitably employ the individual time of at least one able-bodied and straight-shooting Indian.

Nor would we all demand that the missile be gold. Silver would do for most of us—and many of us would be satisfied if the Indian would shoot our patients full of sand—sand enough to come to the front like honest men and confess that they owe the doctor at least a square deal.

Why should Mexico send these belligerent citizens to the hemp fields of Yucatan? We need them here.

ABOUT HOSPITAL MANNERS

A Kansas City (Missouri) newspaper recently discussed the charge made by Dr. J. F. Binnie, chief surgeon at its city hospital, that there is a deplorable lack of good manners of the military sort among the internes. The doctor complains that when he appears at the hospital for his rounds, the internes are not ready to receive him and to accompany him, and that they even sometimes keep him waiting several minutes if they happen to be busy with a patient. The doctor demands that every hospital should cultivate an "atmosphere," that when the chief surgeon or chief physician comes to take charge of his department at any time during the day, there should be a senior interne waiting at the front door to take him to his work and assist him, that the interne should salute him with the proper deference and be to him what an orderly is to his commanding officer.

Although as a nation we do not yield to any other people in courtesy and good manners, this sort of misplaced militarism seems at first sight excruciatingly funny. Fancy a lot of internes kicking their heels in the hall of a hospital, like bellboys, waiting for the chief to arrive, and fancy them bowing to the ground, or saluting like sentries when the great and mighty does make his august appearance. Fancy them falling in line and walking behind their superior with profound deference and bated breath, speaking only when spoken to, and then with polite reservation, "Yes, sir"; "no, sir"; "please, sir."

Binnie's proposition reminds us of conditions as they obtain in Germany, where military customs prevail through all classes and where teachers, superiors and chiefs are received with much show of deference. In our country we are too busy and consider that we have done our duty sufficiently well when we bid a new arrival a courteous good morning.

We are vividly reminded of an experience which the house officer in a southern tuberculosis sanitarium had with a noted German professor, one of the brightest of Virchow's former assistants. The chief of the sanitarium had gone to Germany and the professor was put in charge. The first morning, when he came to make his rounds, the house officer, with his book under his arm, started to walk with him through the different rooms, when the latter halted abruptly, glared at the luckless assistant, and exclaimed: "You valks behindt!" This professor also expected that, whenever he came to the laboratory, the bacteriologist should stand up and salute; and he demanded that all men whom he might meet in passing through the corridors lift their head-coverings and that the women bow. This sort of thing is most amusing to us of simple democratic ways. Such rigmarole may do very well in an army-ridden country like Germany, but it seems strained and opposed not only to common sense but to good taste, in this country.

If we would devote half as much time to criticising our own work as we do pointing out other people's faults, the chances are our own jobs would prove more profitable.

EFFECT OF CHLOROFORM UPON THE TISSUES

Some important data in regard to the influence of chloroform upon the tissues are described by G. Herbert Clark in an article contributed to *The Lancet* of January 21.

In these experiments small doses of chloroform were administered to rabbits, and then their weight was taken day by day.

When the chloroform was administered daily, the animal's weight fell rapidly. If given on alternate days, there generally was but little change, although in a few instances a marked reduction in weight took place. When the chloroform was administered by inhalation, the kidneys and liver suffered considerably, the degeneration being greatest in those animals which survived for a longer period. The spleens were invariably engorged with blood, enormous phagocytes being present, and were distended with red corpuscles and often with pigment. The heart-muscles often appeared flabby and the walls were unusually thin. The liver also suffered when chloroform was administered subcutaneously. When given by the stomach the poison was not so rapidly fatal as by either of the two other methods. The average length of life was sixteen days.

The conclusions reached after this important series of experiments were as follows:

1. Chloroform, in small doses, repeatedly administered by the respiratory passages, subcutaneously or by the stomach, rapidly kills rabbits.

2. The liver shows degeneration of the cells sometimes so marked that the whole center of the lobule is broken down into débris. The cells in the center of the lobule are early affected, those further out, later. Fat is always present, generally in large quantities.

3. The kidney suffers to some extent, but relatively more when the chloroform is inhaled than when injected or given by the stomach. Fat is occasionally found in degenerated cells.

4. The spleen shows intense congestion, the sinuses being packed with red blood-corpuscles. Along with the red corpuscles an orange-colored pigment is generally present, which reacts to the stain for iron A large number of very large phagocytes is present in most instances. The average weight of the spleen was 0.46 Gram heavier than that of the controls when chloroform was inhaled, and 0.59 Gram and 0.17 Gram heavier when injected and when given by the stomach, respectively.

5. Degenerative changes were observed in the cardiac muscles. Fat was not observed in any of the hearts examined.

The Etiology, Nosology, and Treatment of Pellagra

The Drying Linolin-bearing Seed Oils and the Abstraction of Sulphur as Underlying Causes

By GEORGE C. MIZELL, M. D., Atlanta, Georgia
Formerly Associate Professor of Physiology and Gastroenterology of Atlanta College of Physicians and Surgeons; Formerly Gastroenterologist to Wesley Hospital

EDITORIAL NOTE.—Pellagra is perhaps among the greatest medical problems now confronting the American physician. Here is a conscientious effort for its solution, based upon a logical and carefully worked-out hypothesis. In Dr. Bowling's paper, which follows this one, there is another theory—another plan for treatment. Study both.

IN the preparation of this communication I have consulted many standard works on fats and oils (Lewkowitsch, Wright, Brannt, etc.) and most of the writings on pellagra published in the English language, especially A. Marie's "Pellagra" (translation by Lavinder and Babcock), and every statement herein made as a fact, to support the theory set forth, is based upon scientific and commercial literature.

Etiology

Any theory, to merit credit, must be consistent with the facts. For the history of pellagra, the reader is referred to the work mentioned. The first condition that is to be considered is conformation to history. All will agree that there is only one cause for the disease. Nearly all supporters of the maize-theory are driven by facts to the conclusion that maize is not the only cause of pellagra.

As pellagra is a new disease in the United States, we should look for some new factor that has entered into the conditions of life. As it is conceded by all who have presented theories that the disease is noninfectious and noncontagious, and as Sambon's conception will not cover the facts attending the development of pellagra in this country, we are forced to look for some vast change in the conditions of life which parallels the progress of this malady. It is claimed that the change which would account for pellagra in the United States is to be found in the fact that there has been much spoiled corn consumed in more recent years, whereas thirty years ago no spoiled corn entered into the diet of the people inhabiting the affected regions.

Until the question is settled, it is well to admit spoiled corn as a cause of pellagra; at the same time, most writers and investigators admit that it is probably not the only cause. This being the case, we should look for yet other changes in modes of life and other possible causes.

The Substitution of Cottonseed Oil for Animal Fat in the Diet

The one great departure in diet that has been inaugurated during the past twenty-five years is that from animal-fat to vege-

table-fat consumption. A casual investigation will convince anyone interested that the cottonseed oil industry parallels the development of pellagra in the United States. We have entered the ranks of oil-consuming nations. It can be shown that all nations afflicted with pellagra are large oil consumers, and that wherever drying (linolin-bearing) vegetable oils are used to any extent for edible purposes the inhabitants are afflicted with pellagra.

Cottonseed oil belongs to the semi-drying order of oils. Below is given a table of this class of oils, together with their place of origin. Many other commercially less important oils are omitted, because less used and only supplementing the more common varieties.

Partial List of Semi-Drying Edible Oils

Kind	*Place of Origin*
Cotton-seed	United States, India, Egypt, China, Russia, Brazil, Mexico, Japan, Turkey, etc.
Sesame-seed	The Levant, India, Egypt, Java, Siam, Algeria, eastern and western coast of Afrisca, southern Rhodesia.
Maize	United States, Argentina, etc.
Beech-nut	Produced in Europe in 1713, but not at present.
Pinot	Brazil and Guiana.
Kapok	East and West Indies, South America, Mexico, Africa.
Brazil-nut	South America.
Luffa-seed	East India.
Rape-seed	India, northern France.
Pumpkin-seed	Austria, Hungary, Russia.
Sunflower-seed	Hungary, India, China, southern and southwestern Russia.
Poppy-seed	Asia Minor, Persia, India, Egypt, South Russia, northern France.

Poppyseed oil is a drying oil, containing a large percentage of linolin, and it is in extensive use for culinary purposes. Some of the oils enumerated contain a low percentage of linolin and hence may be of no importance as an etiologic factor in the origin of pellagra.

Laws regulating the importation of seed oils into some olive-growing countries have, in recent years, been enacted, with a view to protecting the home industry. Some countries growing enormous quantities of oleaginous seed export it, consuming very little or none of the oil. Such is the case in China and Japan.

These oils differ from the nondrying kind in that they contain linolin, which is the drying agent. The percentage of linolin varies, being 60 percent in cotton-seed oil, and 65 percent in poppy-seed and sunflower-seed oils.

Parallel Prevalence of Pellagra and Seed-Oil Consumption

Some of these oils have been used for culinary purposes by the people of southern Europe for centuries. It is significant in this connection that the first mill for crushing seeds for oil was established in Marseilles in the year 1817 and that pellagra was first reported to the Royal Society of Medicine in 1829.

A striking parallel is that the introduction of cottonseed oil into Egypt, as a substitute for olive oil, was followed by a report of the occurrence of pellagra. Commercial reports show the extent and area of the consumption of seed oils, and these reports show that pellagra coexists with the consumption of this class of oils, except as modified by climate.

In southern Europe, where pellagra began, these oils, because they are cheap, have been eaten by the peasant classes for centuries as a substitute for animal fat and olive oil.

It may be possible to obtain enough oil by eating maize to produce the disease. However, in view of the extent of maize consumption in the South, which fifty years ago far exceeded the amount consumed at present, it seems improbable unless the diet excludes all other food, especially fats. It is very probable that different degrees of diseased seed and grain will furnish an agent very potent in producing disease. Such a matter as rotten cotton-seed or a few bushels of dead rats in all stages of putrefaction in a vat of oil might render refining inadequate.

It is probable that the oil from such seed will produce much the same symptoms as are produced by the continuous eating of the sound oil, but with the difference that the symptoms from the diseased grain would be immediate and transitory, while those from sound oil would be delayed and in proportion to the quantity and length of time over which it is being consumed. A careful study of the experiments that

have been performed with extracts of spoiled corn tends to show that the results were obtained by a solution of the oxidized products of the oil.

Linolin as the Underlying Causative Factor

Another fact this theory is consistent with is that these oils are capable of producing the disease. The food-oil seeds of this class really undergo decomposition. The constituent which decomposes so readily is linolin.

When linolin is exposed to the air it is oxidized into linolic acid. Linolic acid combines with alkalis, forming salts which undergo oxidation even more readily than do free linolin or linolic acid. Linolin also has a strong affinity for sulphur, giving rise to a compound that does not oxidize. When linolin is brought into contact with an oxidizing agent like alkaline potassium-permanganate solution it oxidizes more rapidly than in open air, with the same successive formation of linolic acid, sativic acid, azelaic or linusic acid, and ultimately isolinusic acid, besides aldehyde, according to the strength of the solution.

As has been demonstrated, when these drying oils are eaten there is a deposit of linolin in the tissues, and as the conditions are the same in the presence of the alkaline blood containing hemoglobin, an oxidizing agent, there seems to be no reason why this oxidation should not occur. It is perhaps true that linolin may be taken as food within certain limits and produce no deleterious action. This limit is probably restricted only by the amount of sulphur present with the food and in the tissues of the body.

The oxidation products of linolin are the agents suspected of being the cause of the disease. A more complete knowledge of these end-products will probably throw a clear light upon the symptoms and pathologic anatomy. Their nature is well enough known, however, to warrant the statement that they can produce the symptoms.

Observations in Animal Feeding

Experimental evidence that this is true is abundant. Only a brief outline of these experiments can be given here. White rats that have been fed a small amount of cottonseed oil daily, in addition to a general diet, after a month die from a two-hour exposure to the sun. (Personal observation.) It is known to every farmer in the cotton-belt that cotton-seed and the meal are poisonous to hogs, horses, and cattle. The seed and meal can be fed to farm-stock, with any degree of safety, only in very limited amounts. Cows that are giving milk may eat larger amounts of seed or meal and hulls than dry cattle. It is probable that the immunity of milch cows lies in the fact that the oil is eliminated as butter-fat and not stored up in the tissues. The presence of the oil in butter has been demonstrated. When cows are fed cotton-seed meal through the calving period they are liable to die or miscarry, and the calves will likely die.

In Germany oil pressed from sesame-seed that has undergone "heating" is known to be poisonous, and the oil-cake poisonous to cattle. Cottonseed products can be fed with greater impunity in winter than in summer.

The question naturally arises as to the freedom from disease of cattle fed on corn. Oil of corn contains only a small percentage (about 15 percent), while cottonseed oil contains 60 percent.

This theory is the only one yet advanced that is consistent with all the facts. It is the only one by which all the symptoms can be explained.

Symptomatology

There is only one characteristic symptom of pellagra—the dermatitis. All names (erythema, eruption, etc.) given to this symptom have failed to comprehend the exact nature. This symptom when uncomplicated, as stated above, is characteristic. Except in some cases, there is present an erythematous dermatitis around the genitals and anus from local discharge, and irritation of perspiration on opposed surfaces; the dermatitis is always confined to those surfaces exposed to the heat and light of the sun.

The Characteristic Dermatitis

The features of the dermatitis vary greatly in different individuals, from a

slight roughness to a severe inflammation.

Unaffected by treatment or secondary infection, pellagrous dermatitis is always dry, without pus or exudation of serum. An embalmed epidermis, with varying degrees of reaction inflammation involving the underlying tissues, describes the condition. There may be only a slight desquamation or a bleb-like formation. Where desquamation or shedding of the embalmed epidermis is complete there remains a delicate, smooth, complete skin. The desquamation is slow—over several months—in mild cases, and rapid, lasting one to four weeks, in severe cases.

When the desquamation is in large scales or crusts that curl and cut into the delicate underlying skin, infection takes place and the socalled moist erythema is produced. Destruction of the epidermis may be so complete that a glove-like cast of the hand can be removed. With rapid destruction of fat, the characteristic atrophied appearance of the skin and tissues at the site of the dermatitis is seen. This changes to a normal appearance when the patient takes on weight.

It is consistent with this theory to believe that a number of months may elapse after discontinuing the use of the incriminated oils before the danger of developing the symptoms is passed. How long a certain area of fat-deposit will remain in the body is in part governed by the amount and character of the food eaten. It may be true that a remnant may remain for an indefinite period. In one instance a severe outbreak of pellagra developed six months after the exclusion of these products from the diet.

The disease may develop at any time while any of the oil remains in the tissues. If the dermatitis appears in the autumn and is arrested before all of the linolin is oxidized it necessarily follows that it may recur the following spring if it is not removed during the winter, albeit the consumption of culpable oil is discontinued. In none of my cases in which cottonseed oil was excluded from the diet has the disease recurred in two seasons. In two cases where the subjects continued to eat cottonseed oil it recurred, in one for five years, in another, in one year. In several instances in which the dermatitis disappeared in the early spring the attack recurred to a slight degree in one or two months.

In the last-named cases the area affected was most marked in those parts not previously affected. This behavior of the dermatitis, so far as I know, has not been mentioned. This fact further bears out this theory, in that it shows that the conditions attending the dermatitis are none other than the character of the tissue and the action of the heat and light of the sun may determine.

Application of the Author's Hypothesis

A careful study of the conditions concerned in producing this one characteristic symptom will aid in an application of this theory.

There is no prodrome in pellagra. The patient may or may not have constitutional symptoms during the first days of hot weather. To say that there is anything approaching a regular spring and autumn exacerbation is an error. When the patient is lean of hand the dermatitis is slight. If the hands are exposed during a hot period in December the dermatitis appears. When the patient is confined to the house and protected from the sun the constitutional symptoms are benefited and the dermatitis disappears. It may appear at any time of the year, provided the sun is hot enough and there is a layer of fat to be acted upon.

When the dermatitis occurs in the early spring, and the fat is all destroyed, the patient, on account of hot weather, is not vigorous, the digestion is impaired, and he takes on flesh slowly. In four or five months another layer of fat has been deposited. The weather begins to get cooler; the patient feels better; he again begins to go outside. If the sun is warm enough he has another exacerbation. When the regular winter sets in he recovers, he is more vigorous than in summer; his appetite is better and he takes on relatively more fat. By spring he is in condition for a more severe attack.

People who do not go out in the sun's heat or light have all the symptoms except

the dermatitis. They have an extreme bleaching of the skin over the entire body, face, and extremities, giving an anemic appearance, instead of the socalled pigmentation of those who go out in the sun. Anemia as a part of pellagra is not present in uncomplicated cases. The blood and hemoglobin are unaffected until some secondary condition arises.

In Roumania, where the Gypsy children go naked in the streets, we have a demonstration that the dermatitis occurs on all parts of the body, but most marked on the extremities. This shows that the agent in the tissue is not equally distributed over the body.

Bearing on this difference in the tissues, we have the statement of Lewkowitsch, who says that the liquid fats diminish in proportion as the position of the fat approaches the warmer parts of the body. As linolin is one of the most fluid fats, it would be deposited to the greatest extent first in the extremities. The dermatitis is not symmetrical except in symmetrical exposure.

Much space has been given to the foregoing symptom only because of its characteristic nature.

Some of the Other Symptoms

Other symptoms can be mentioned only in part here.

Any phenomena due to an irritated brain and spinal cord may be present: salivation; stomatitis, mild or exterme; diarrhea or constipation; increased or diminished appetite; stupor or mental excitement; localized or general neuritis; muscular rigidity or spasmodic contraction; various gastric disturbances.

These symptoms and others may appear in any large collection of cases. The variations are extreme, but when such factors as the nature of the cause and individuality are considered we have a full explanation.

It is only necessary to take into consideration the immediate and remote results of the poison. Apply the action of the poison in large and small doses, together with results of continuous and intermittent administration, to a normal or an already diseased organism, and we can understand the multitudinous clinical features presented.

Diagnosis

For the sake of records, a diagnosis of pellagra should not be made without the history or presence of dermatitis appearing during hot weather. Patients who have indigestion, with weakness in the extremities, and nervousness, coming on in hot weather, and who have eaten linolin-foods in comparatively large amounts, should be treated as victims of pellagra.

It is often difficult to obtain a history of oil consumption. My investigations tend to show that it is necessary to introduce relatively large amounts of linolin into the body to produce the disease. In 200 consecutive cases the patients gave a history of eating cottonseed oil during not less than eight months. Now that the government has ruled that the label need not show the contents of the article offered for sale it will be more difficult to get at the facts.

Prognosis

Within certain limits the outlook is good. Except in cases where the functions of the stomach and bowels have been destroyed, the immediate results of treatment are always good. Where there is diarrhea as a result of permanent complete suspension of these functions the case is hopeless, and if any relief is obtained by the usual remedies for diarrhea it is only temporary. The other unfavorable feature of the disease is the change which takes place in the arteries, which may be general or localized. These changes consist in thickening and contraction, which conditions develop slowly and appear to resemble those following overmuch x-ray exposure.

If the assumption as to etiology here presented is correct, recurrence is prevented by excluding the oil from the diet or sending the patient to a cold climate. It is unfortunate that some of our renowned authorities are at present very active in asserting in the daily press that there is no cure for pellagra, and that when relieved it will return. One of the most discouraging duties a physician has to face is a hopeless

case. Those who have given up hope should not discourage others.

Treatment

Mild cases will recover without treatment when linolin is excluded from the diet and the patient is kept out of the sun. Because of this fact, many remedies have been credited with being effective. As indicated above, *sulphur is practically if not positively a specific.* Administered in absorbable form to saturation, together with proper attention to the impaired digestion, it will be effective in every case that has not passed the bounds of medical aid. *Calcium sulphide is the most effective form in which sulphur can be gotten into the blood.* It is best administered in 1-6-grain granules of reliable make, 3 every three hours or only three times a day, according to the severity of the attack. In rare cases, 10 or 15 granules have been most beneficial.

Where there is a deficiency of hydrochloric acid and enzymes in the gastric secretion hydrochloric acid and essence of pepsin are valuable. Dried sulphate of iron is beneficial as an astringent. Of all stimulants sparteine is most valuable. Others should be used continuously. Where constipation is present, castor oil is a satisfactory remedy. Paregoric may be given for attacks of pain and depression of respiration. Scanty action of kidneys and irritation in the bladder can be relieved by acetate of potassium. [We wish Dr. Mizell would try arbutin.—Ed.]

Insomnia may need relief, which is afforded by veronal in solution. Nausea and vomiting are relieved by solid food, broiled steak or chicken with dry toast; or a bit of chicken may be given every two hours. Water is to be restricted to 4 ounces at a time and allowed only with the nourishment. When the nausea and vomiting are relieved, gradually increase the nourishment and lengthen the interval between feedings.

During the active state of the dermatitis local applications are unnecessary and should be avoided. When desquamation begins the underlying skin may need protection from crusts, which may be kept soft by any nonirritating application. Neuritis in the feet and legs is temporarily relieved by poultices of epsom salt and flaxseed meal. Itching and burning are sometimes aggravating, and some relief may be had by bathing in strong salt solution or mild carbolic solution.

Bear in mind that no claim is made for sulphur as a curative agent further than that it stops the progress of the disease. It is like the water that puts out a fire that is burning a house: when the fire is quenched the supports and braces may be so badly damaged that the house, even though still standing, will fall with the first wind. A patient, after being cured of pellagra, may still be a proper subject for the neurologist, alienist, gastroenterologist, aurist, oculist or gynecologist—and then not become whole.

The Treatment of Pellagra

By E. H. BOWLING, B. S., M. D., Durham, North Carolina

PELLAGRA is the least understood of any of the great scourges of mankind. This seems remarkable when we think of the fact that it has been under the observation of some of the world's wisest physicians for more than one hundred years. It has been the great scourge of some of the countries which boast of the world's most ancient civilizations, and still we are at sea as to its cause, its nature, and its cure.

In the southern states sporadic cases have been reported for the last six or seven years. The first time I saw a case was in the summer of 1905. I did not realize its true nature, nor did my consulting brethren, until years after the patient had died. In 1910 we had, I judge, fifty cases in our city, and this year we have had, according to various estimates, from one-hundred and fifty to two hundred. I have treated during this summer thirty-one victims, and

these, with twelve cases I treated last year, have given me opportunities to make some observations of the disease, leading to conclusions different from the usually accepted theories.

I do not believe that pellagra is contagious. I have seen numbers of instances where there were two or more victims in the same family; I believe, however, they all became infected from the same source, and not that they contracted the disease, one from the other, by contact. I believe pellagra is infectious like typhoid fever, and, further, that a pellagrin is a focus of infection for the community in which he lives.

The first pellagra patient I saw (six years ago, as stated above,) lived in one of the factory settlements of this city; the next one encountered (two years ago) was in the same neighborhood; and within a radius of a few hundred yards, I am confident, there have occurred between thirty and fifty cases of the disease—more than in any similar area in this city. This was not primarily an unhealthy location; the people are rather above than on a level with the factory settlements of the city. Most of these people own their own homes, and they live as well as the average well-to-do families.

I cannot agree with most of the accepted authorities as to the cause of pellagra. I do not believe that injured corn or its products act as a causative agent. If people eat injured corn, I think it would cause an acute sickness rather than a chronic ailment. My observation has been that persons eating injured or defective grain-foods suffer from an acute intoxication—what we might call a grain-ptomaine poisoning, as the condition acts very much like a ptomaine poisoning. I can not admit that the corn contains pathogenic organisms, for the cooking process, to which it is always subjected, would kill these bodies, and so we could only get those injurious effects resulting from the altered condition of the grain constituents as brought about by the organisms. I believe if these organisms caused any sickness, this would be in an acute form only.

I cannot accept the sand-fly and buffalo-gnat theory, because, if we have those insects in this community, they are not known to exist. They can, I think, safely be eliminated as a causative factor in the spread of the disease.

I believe that pellagra is caused by some pathogenic germ that possibly has not yet been isolated; that this germ gets into the stomach; and if the stomach is not in a normal condition it finds lodgment in the digestive tract and starts up the disease.

Pellagra of Gastrointestinal Origin

It is plain from the above that I believe that pellagra is primarily a gastrointestinal disease, the nervous and mental symptoms following in its train. It seems to me that, having an entirely erroneous idea about the cause of the disease, our treatment has necessarily thus far been unsatisfactory.

The first symptom usually seen, or rather the first symptom that usually directs our diagnosis, is the rash that appears simultaneously on both hands and arms. We may jump to the conclusion that it is a skin disease and begin to give arsenic and prescribe various ointments and lotions to cure the skin eruption, and when this gets better, as it will usually do in the first attack, without any treatment, we congratulate ourselves that we have effected a cure and pay no further attention to it. Meantime, the disease gets in its terrible ravages in the system for another year, and when it breaks out the next year the condition is so far advanced, such changes in the nervous system have been brought about, that the case is hopeless. We might with equal propriety poultice a general anasarca and neglect to treat the diseased kidneys and other conditions that are the cause of it.

Diagnostic Symptoms

In every case when we find the eruption we may know that this is a distress-signal hung out by a system surcharged with toxins, showing that the disease has raged in the body for a year or longer. Then, if we make careful inquiry, we shall find all the symptoms of gastrointestinal irritation dating back one, two or possibly three years. The first symptom, on account of which

we are usually consulted, is an obstinate sore mouth that does not yield to the ordinary remedies. Possibly the rash has not made its appearance, and if it has, the patient nearly always can give some cause, such as sunburn; or if it is a woman, the trouble usually is attributed to some certain kind of soap she has been using, and many a time such a patient will not accept the physician's diagnosis and may even discharge him if he persists in his diagnosis of pellagra.

The diarrhea spoken of by most observers I have not found to be a constant symptom; in fact, a majority of my patients have been rather constipated than otherwise, and my observation has been that when there is diar hea, vaginitis or other evidence of inflammation of the mucous surfaces, loose bowels are an ugly symptom, and indicate that the system is charged with the poison and every eliminative organ is doing its best to rid the body of the noxious toxins.

We can very often diagnose a case of pellagra before the eruption takes place. The evidence of indigestion, the flatus in the bowels, the gastric catarrh, the fulness in the head, sometimes giddiness, often double vision, increased patellar reflex, and, especially, the increased motility of the stomach, often hyperesthesia of the skin (which sometimes amounts to an intolerable burning), are all suspicious symptoms and in a community where pellagra is rife will, I think, always justify us in a suspicion that the patient has pellagra and warrant us in beginning treatment for that disease.

The patellar reflex, in these cases, is always exaggerated in the first stage, and as the disease advances we find that it grows less and less until entirely absent. The motility of the stomach is always increased in the first stage, so that, when we give a test meal and after an hour withdraw the stomach-contents, we shall get nothing but a little glairy mucus. However, as the disease advances, we find the opposite condition setting in; while in advanced cases we find gastric retention, so that, when we give a test breakfast and withdraw the contents, we may get the debris of the supper of the night before.

Absence of Hydrochloric Acid in Stomach

The absence of hydrochloric acid in the stomach is a constant symptom. I have never seen a case far advanced where there was a trace of hydrochloric acid. This has been such a constant condition that I now look upon it as a very valuable diagnostic symptom.

Next, after the gastrointestinal, we notice the nervous symptoms. Most patients with beginning pellagra show depression, deficient memory, apprehension, and have spells of vertigo. But when the disease has advanced to the eruptive stage, the patient usually has the delusion that it is not pellagra, but attributes it to sunburn, the use of poor soap, or to other causes, and will insist on some ointment or other local treatment for the eruption. For the past year I have had a nervous old hypochondriac making regular visits to my office, each time having a new complaint, as he owned some work on medicine which he studied most assiduously, the list of his diseases ranging from nasal catarrh to diabetes mellitus, while pulmonary tuberculosis was a regular old standby that could always be called into commission.

The Typical Skin Eruption

In July the typical pellagra lesions appeared on the backs of both hands. The patient did not even call my attention to it, but I began to make inquiries about it and found that this was the third year of the eruption. He even presented arguments to convince me that it was not pellagra. I insisted on my diagnosis and finally persuaded him to go to the hospital, when the blood examination showed only 70 percent hemoglobin and hydrochloric acid entirely absent from the stomach. This made the diagnosis absolutely certain, even had I entertained any doubts before. I assured the man positively that he had pellagra, but with all this he would not believe he had the disease and would not stay in the hospital longer than three days. He afterwards decided that possibly I might be right, returned to the hospital, stayed ten

days and, as I thought, was progressing finely, when he suddenly developed cerebro-spinal meningitis and died in thirty-six hours. I recite this case to show a tendency that I have often noticed. I used all my persuasive powers to convince the old man that he did not have all the other diseases suspected, but failed to persuade him he had pellagra.

The progressive loss of hemoglobin I have found to be another constant symptom. With the appearance of the eruption, I find the hemoglobin to be from 80 to 90 percent; as the disease advances, I find that the hemoglobin goes down and down; when it reaches 60 to 70 percent, if the patient is a woman, I find she always develops typical hysteria; when it gets to 50 percent, whether in man or woman, the victim, without exception, becomes insane; finally, when it gets much below 50 percent, death ensues. The white blood-cells stay about normal. In all my experience I have seen only one instance of leukocytosis.

According to my observation, the eruption, or rash, is the beginning of the second stage in the disease. I think the "germ" finds lodgment in the stomach and sets up a catarrhal gastritis, and this increases the motility of the stomach as well as interferes with the proper digestion of the food. The food is forced prematurely into the alimentary canal in an improperly prepared condition, there to be acted upon by the bile, pancreatic juice, and the other intestinal secretions, the whole a fermenting mass and a propitious feeding-ground for all the pathogenic germs that may be found in the intestinal tract. This mass, instead of forming wholesome chyle for the proper nourishment of the body, generates toxins, ptomaines, and all the host of deleterious substances capable of poisoning the body. These are absorbed and poured into the blood current.

In the face of this invasion, the liver makes heroic efforts to detoxicate the blood, but it is finally borne down by the accumulated load of poisons and allows the whole poisonous mess to go freely circulating in the blood current. We now find the nervous system staggering under the increased irritation, and at last nature hangs out the red flag of danger in the rash we see upon the hands and arms. Just why this irritation always selects the gyrus centralis anterior in the frontal lobe of the brain I am unable to explain by any theory. As to why the rash will disappear, to reappear next year in a more aggravated form, I also am free to confess my ignorance; that these things happen, though, is a fact patent to every observer.

From the stage of irritation the next step is sclerosis, and then we have the interference with motion, the staggering gait, the inability to stand erect with the eyes closed, and other evidences of a sclerotic condition of the motor area of the brain.

The Author's Line of Treatment

For the sake of some country doctor who is far from any drugstore, I will say that, in emergencies, I have made many gallons of the following extemporized chlorine water:

Put 40 grains of chlorate of potassium into an 8-ounce bottle, then pour on the chlorate 2 drams of hydrochloric acid and let the chemical action begin, so that the yellow chlorine gas is beginning to escape. Now add about 2 ounces of water, let stand for about half an hour, then fill the bottle with water and you have a very good article. This I employ as a gargle and internally.

In connection with the chlorine water, I usually give calcium sulphide, 1 grain three times a day.

In a very few instances I have found the gastric irritation so acute that the chlorine water seemed to irritate. When this happens, I put the patient on the following, until he can bear the chlorine water: Fluid extract of condurango, 1 ounce; listerine, 1 1-2 ounces; liquor of potassium arsenite, 3 drams; carapeptic liquid, enough to make 4 ounces. Directions: One teaspoonful in water three times a day before each meal.

This treatment I have found all that was required in those cases that were of comparatively recent origin, when the nervous system was not badly involved and the hemoglobin has not got too low.

In cases of longer standing or where the changes in the nervous system have been

decided, this treatment alone will not suffice, because the whole system is staggering under the load of accumulated poisons and it cannot throw off all that it contains; and even though we stop the formation of any more, the system can not take care of what it already contains. Under these circumstances, I try to assist nature in its efforts at elimination by the use of hypodermoclysis and stomach lavage. I usualy give, by hypodermoclysis, from one to 4 pints of normal salt solution once or twice a day, the quantity depending upon the state of the patient. The stomach is thoroughly washed out every other day.

When by these means I have thoroughly eliminated the poisons and feel that I have stopped their formation in the stomach and intestines, then I try to restore the hemoglobin to the blood and the hydrochloric acid to the stomach.

My favorite prescription for this purpose is as follows: Potassium nitrate, 1 dram; ferrous sulphate, 1 dram; nitrohydrochloric acid, 6 drams. Warm the mixture slightly, let it thoroughly digest, then add 2 drams of liquor of potassium arsenite. Directions: Take 6 drops in water after each meal. By giving the acid after meals, we stimulate the flow of acid in the stomach.

A certain number of patients cannot take the acid treatment; in which case I give an alkali before meals, also with the object of augmenting the secretion of normal acid, and I favor a combination like this: potassium bitartrate, 2 drams; lithium citrate, 1 dram; elixir maltopepsin, sufficient to make 4 ounces. Directions: Take one teaspoonful in water three times a day before each meal. This mixture will sometimes act more favorably than the acid.

When we have rid the system of the poison and stopped its formation in the gastrointestinal tract, the after-treatment is a matter of individual choice. I usually give some preparation of iron, combined with bitter tonics; also codliver oil.

Now, does this procedure cure? In a majority of cases, yes! In cases not too far advanced, when the changes wrought on the nervous system are not too pronounced, it will cure at least 75 percent. Last year I treated twelve patients, two of whom died, while four strayed off into the hands of other doctors or moved away—anyway, I lost sight of them. Six got well. Of these six, one had a stroke of paralysis in January, 1911, and died the same day. One has had a slight relapse, but it yielded very nicely to my treatment, and the other four remain well to this day, showing not the slightest return of the disease.

This year I have treated thirty-one pellagra patients, Of these four died, four strayed away, twelve have been discharged with all appearances of being cured, ten are still under treatment but with every indication of getting well, one is under treatment but not improving. Of these four that died, three came into my hands in the last stages, when their cases had been pronounced hopeless by other doctors.

I do not believe the treatment is perfect, but it is given to the world with the hope that it may be a sign-post to other men, and that they will push the investigation further, so that we may eventually discover the true cause and a sure treatment for this disease.

I wish, in closing, to acknowledge my indebtedness to Mr. Geo. W. Watts, a philanthropist of our city who built and equipped the beautiful Watts Hospital at a cost of more than half a million dollars, and without which these investigations would have been impossible.

To Dr. Joesph Graham of our city I am indebted for the idea of hypodermoclysis. He was, I think, the first man ever to employ this method in the treatment ofthis malady.

To Dr. T. C. Kerns, resident physician at the Watts Hospital, I am deeply indebted for his untiring efforts in making the blood-counts, estimating percentage of hemoglobin, and testing for gastric hydrochloric acid. Without his aid I could never have made these tests so thorough.

For the present I am done. Next year I hope to add still another mite to our knowledge of the malady. This year, and last, it has been a groping in the dark. I could not believe the accepted theories, and my own had to be proved out, by hard work. I hope I have added a little to our stock of knowledge. If I have, I am content.

Sexual Impotence in the Male

Its Causes and Treatment

By WILLIAM J. ROBINSON, M. D., New York

Editor of "The Critic and Guide," "The Medical Review of Reviews," and "The American Journal of Urology"; Author of "Never-Told Tales," etc.

I HAVE never subscribed fully to the Latin maxim, *Qui bene diagnoscit bene curat*—he who diagnoses well, cures well. For unfortunately there are only too many cases where the diagnosis is perfectly obvious, while the method of treatment leaves very much to be desired. Nevertheless none will dispute the statement that of two men equally proficient in treatment, the better diagnostician will have the larger percentage of successes.

Probably in no class of cases is the ascertainment of the underlying cause of the trouble so important as it is in the sad affliction which is designated as sexual impotence.

Knowledge of the Cause Is Half the Battle

Very often the mere finding of the cause is more than half of the battle won. The causes being very numerous and complex, great patience and judgment are required in taking the patient's history, and in no other class of diseases is the patient's complete confidence so absolutely necessary as it is here. And without it we are often helpless.

The causes of impotence being, as stated above, very numerous, we shall have to be rather concise in their discussion. They are, more or less in the order of their importance, as follows:

Masturbation.—This is a very common cause, because, as I have stated elsewhere, practically every human male begins his sexual life with masturbation. And while the habit if commenced *fairly late* and practised *moderately* in the majority of cases leaves no ill effects, there is no question that if commenced at the age of ten, twelve or fourteen and indulged in *immoderately*, it may, and usually does, lead to relative or complete impotence, temporary or permanent.

Pollutions.—What we said about masturbation applies with equal force to pollutions. Pollutions of moderate frequency are harmless. But if frequently repeated and of long standing they may ultimately lead to impotence.

Spermatorrhea.—We do not meet frequently with cases of true spermatorrhea, but when we do, we generally also have to deal with relative or complete impotence.

Prostatic Congestion.—An inflamed or congested prostate may be the cause of impotence, but not invariably so. On the contrary, in some cases an inflamed and irritable prostate may lead to an increased *libido sexualis*, and apparently also to more vigorous erections.

Urethral Congestion.—Congestion of the prostatic urethra is a frequent and well-established cause of sexual impotence. The hypersensitiveness of the urethral mucous membrane is sometimes exquisite and renders an erection impossible or imperfect and ejaculation premature. The most common cause of such urethral congestion is a severe chronic gonorrhea. And thus gonorrhea, besides causing suffering and death among women, blindness among the newborn, sterility in men and women, is also the cause of one of the most distressing afflictions of the male sex—impotence.

Age.—This is, of course, a very important factor, for all men become impotent if they only live long enough. But if we attempt to answer the question, At what age do men become impotent, at what age is impotence physiological, normal? we find we cannot do so; for, in the sexual sphere more, perhaps, than anywhere else, is each man a law unto himself.

In many men the sexual power begins to decline at the age of 40 and becomes extinguished at the age of 50. Many men

are just as powerful at 50 and 55 as they were at 30, while not an insignificant percentage remains perfectly potent and ardent at the age of 65, 75, and later. I have had a patient who had his first gonorrhea at the age of 68! Since the death of his wife, three years previously, he had been indulging in masturbation and illicit intercourse. He wanted to be cured of his gonorrhea, because he decided to get married. He assured me that, not only could he indulge in intercourse nightly, but that the desire to do so was very great—irresistible.

There is also a class of cases which I have not seen referred to anywhere, but which are interesting from a physiologic point of view. I refer to men who become sexually stronger after the age of 40 or so. I have known several men who assured me with absolute positiveness that their sexual power—duration of the erection, ability to repeat the act—was considerably stronger at 45 than at 35 or at any previous age.

Sexual Excess.—Sexual excess may *per se* be a cause of impotence. Every physician who has sexual diseases to treat can testify to that. I have now the following case under treatment: Patient, X. Y., 25 years old, in perfect health in every respect. Led a model life. He masturbated only moderately for a period of three or four years; suffered with occasional pollutions (about once a month). Had had no intercourse until his marriage, six months ago. Indulged immoderately, six to eight times in twenty-four hours. After two months of this honeymoon orgy he began to notice a decline both in libido and in strength and duration of erections. But instead of giving his system a rest, he kept right up, incited to the excesses by his wife. In another month he lost all desire and was unable to get an erection. Apparently both the erection and the ejaculation centers were completely exhausted.

Fortunately in almost all such cases the impotence is only temporary, though the former vigor may never be regained. As a rule complete sexual rest, with proper tonic treatment, brings about the desired result. But while this is true of adults, it is not true when the victims of sexual excess are boys. In them the impotence may become permanent. I know of cases of very young boys (eight, ten, twelve, and fourteen) who had been seduced by vicious servant maids and nurses and forced to perform the act the best they could several times a day. Some of those victims never recovered, remaining impotent for life.

Nothing injures the sexual apparatus so much as its premature abuse. The excess that will in the adult cause but little or only temporary damage will in boys cause terrible and sometimes permanent havoc.

Despite Contrary Assertion, Continued Continence Is Harmful

Sexual Abstinence.—I am firmly convinced that continued complete abstinence from any sexual gratification may result in partial or complete, temporary or permanent, impotence. I am well aware of the fact that some physicians deny this possibility. I am also aware of the fact that some societies have even passed resolutions to the effect that intercourse was unnecessary to perfect health. But to this I will reply that one positive testimony counts for more than one hundred negative testimonies. If a hundred physicians have not seen any impotence resulting from abstinence, then it is their good luck or their misfortune. It may be simply an accident in their practice, and their testimony cannot go far in comparison with the testimony of physicians who *have seen* cases of impotence for which they could find no other etiologic factor than that of abstinence. I could give several cases from my practice, but two will suffice.

Case I is that of a physician 35 years of age. He practised intercourse moderately between the ages of 18 and 24, and his sexual power was normal. At the latter age fear of venereal infection, mixed with suddenly arisen moral scruples, determined him not to indulge any more until he married. The struggle to overcome his desire was a hard one, but became gradually easier. He would have occasional emissions accompanied with strong erections; but gradually the latter became weaker and the former rarer, until sexual matters almost completely ceased to bother him.

If he had a desire or if a lascivious picture presented itself to his mind, he suppressed it ruthlessly by a strong effort of the will. At the age of 34 he became acquainted with a young lady whom he was very anxious to marry. But before broaching the subject at all he decided to test his virility. The test resulted in complete failure. He made several attempts with public and semipublic women, but in each case he failed miserably. He could neither get up a desire nor an erection. He is improving under energetic treatment, but it is questionable whether he will ever regain his full vigor, for both the penis and testicles show quite some atrophy.

Case II is that of a drug manufacturer, 38 years of age. He is not only a pious but a sincerely religious man, and he considered extramarital intercourse a heinous sin. His passions were very strong, but he never masturbated; he suffered from moderate pollutions accompanied with powerful erections. The erections became gradually weaker, but the pollutions did not increase in frequency. At the age of 38 he decided to get married and came to consult me as to his virility. The sexual organs showed no abnormality, no atrophy. I told him that in a case like his, where he had had no erection, practically, for years, it was a risky matter to pronounce an opinion and that a positive decision could be arrived at by a test only. This, of course, a religious man such as he could not think of doing. He married, and another terrible domestic tragedy (the wife is only 24) has been added to the already fearfully long list. He is completely impotent so far as performance is concerned, though he is not lacking in desire.

Nature does not allow us to trifle with her. She does not permit any organ to remain inactive, any function to lie fallow for years without meting out punishment: the organ atrophies more or less and the function is destroyed.

Those Society Resolutions

As to those resolutions passed by some societies to the effect that intercourse is unnecessary and abstinence perfectly harmless, I regret to say that all such resolutions have so far been passed by societies that are tinged or fully impregnated with religious or moral bias. They have not been passed by calm, scientific investigators; they have been passed by good but rather narrow men and women, with a certain object in view, for a certain purpose. That purpose has been to decrease the immorality of licentiousness, that is to say, the sin of illicit intercourse, and to guard the young men from the dangers of venereal disease. But while the purpose, being both moral and hygienic in character, is a laudable one, I maintain that the statement that intercourse is entirely unnecessary for one's perfect health (note that some of the resolutions have it that *illicit* intercourse is unnecessary—just as if nature made a difference between licit and illicit, between legal and illegal) is a falsehood, and that moralists and theologians have no right to sail in the garb of unbiased scientists.

As to the danger of venereal disease, it is a reality and the contraction of venereal disease is a great misfortune. But I will here repeat the words of a physician friend, words which I do not subscribe to, but which give some food for thought. Said this physician friend: "I would rather have our young men run the risk of venereal infection than have them become confirmed masturbators and impotent." These words acquire special weight nowadays, when the venereal prophylactics in our possession reduce the danger of venereal infection to nothing, or to a negligible quantity.

And I will add this: A wife can be protected against her husband who has had a gonorrhea; nothing can be done for her with a husband who is permanently impotent.

Coitus Interruptus vel Reservatus.—The abominable practice of withdrawal or interrupting coitus just when an ejaculation is about to take place and when both parties are at the highest point of tension is one of the poisonous fruits of our modern civilization. Though not unknown in ancient times, and even mentioned in the Bible, it is only within the last quarter of a century or so that it has come into widespread use. The modern husband and wife,

deeply feeling the responsibility of bringing into the world more children than they can properly bring up, frequently make use of some method of prevention of conception. But this method, besides being unsafe, that is to say, uncertain, is one of the most injurious methods imaginable. It is responsible for the numberless cases of melancholia and neurasthenia and is an undoubted cause of impotence. As a rule the impotence is only partial, expressing itself in imperfect erections, in premature ejaculations; but so far as libido is concerned, it may be completely absent. In fact, the man may develop a disgust for intercourse.

In this connection a word may be said about condoms. Their use sometimes is injurious so far as libido is concerned, but the cases in which they affect virility are very rare. So far as ejaculations are concerned, they are usually retarded rather than accelerated.

Psychic Impotency

Marital Dislike.—It is a sad fact to chronicle, but being a fact it *must* be chronicled. Certain cases of impotence are due exclusively to the man's dislike for or indifference to his wife. And the impotence makes itself evident only toward the wife; with other women the man may be perfectly potent. If such cases were frequent, monogamy as an institution would have a hard time of it. Fortunately "marital impotence" is rather rare.

Drugs.—A number of drugs are reputed to have a ruinous effect on man's sexual power and to lead ultimately to impotence. Those drugs are opium and morphine, cocaine, arsenic, tobacco, chloral, the bromides, and potassium nitrate. There is one drug that I have not seen mentioned anywhere, but of whose power to cause, ultimately, sexual debility I am firmly convinced. That drug, strange as it may seem, is strychnine. I myself hesitated to accept this drug into the category of sexual depressants, but several facts left me no choice. I have treated a number of patients who were given by their former physicians strychnine for sexual weakness; and in a very large percentage of cases the story told was the same. At first, on taking the medicine, they felt better and stronger; the erections were firmer and the desire was more frequent, but on continuing the use of the drug and perhaps increasing the dose, the condition became worse. This history was given by too many patients to be accounted for merely as a coincidence.

In medicine we must be very careful not to mistake *post hoc* for *propter hoc*, not to confound a sequence with a consequence, still, when we see the same phenomenon repeated in a number of cases we have a right to draw tentative conclusions, at least. As strychnine may do great harm in paralysis, so it may do injury in sexual debility; by irritating the already irritated erection- and ejaculation-centers, it causes their exhaustion and thus makes bad matters worse.

As to tobacco, I cannot speak from personal knowledge. The statement is generally made that excessive use of tobacco causes sexual impotence. I have not seen such instances; I have seen excessive smokers who were impotent, but in them the excessive consumption of tobacco went hand in hand with the excessive consumption of alcohol, and so it was impossible to decide which agent was more to blame. Morphine and cocaine in small doses stimulate the sexual desire, but that chronic morphinists and cocainists are impotent is well known. The same is probably true of the habitual use of cannabis indica.

As to the injurious effects of the bromides, particularly potassium bromide, I have seen some very sad cases. Some high-minded young men, considering extramarital intercourse morally wrong, decided to repress their sexual desires by the use of potassium bromide. At the advice of a young physician, they took 30 to 60 grains (2 to 4 Grams) every night for a period of several months. Two of the young men kept up the bromide, with some intermissions, for over two years. They all succeeded in repressing, in suppressing their desires. But, unfortunately, they also succeeded in several other things: they succeeded in ruining their digestion,

in getting a nice crop of bromide-acne that was very resistant to treatment, and in becoming impotent. Fortunately I succeeded in restoring their potency to a greater or lesser extent, but one is still under treatment and there is a possibility that his deplorable condition may be permanent. In that case this conscientious fine young fellow will, of course, give up the girl he loves and will have to vow himself to lifelong celibacy.

[*To be concluded.*]

The General Practitioner as a Gynecologist

Everyday Helps for Routine Work

By GEORGE H. CANDLER, M. D., Chicago, Illinois

III

GONORRHEAL vulvitis is unquestionably the variety of vulvar inflammation is most frequently encountered. In nine cases out of ten, various more or less troublesome complications will arise, and require careful attention.

It is not always possible to determine the initial point of infection; occasionally the urethra and vagina will be involved before the vulva; again, these parts will be the first to be affected; or the vagina, urethra and vulva may be invaded at the same time. A woman with a simple catarrhal vulvitis offers a specially favorable soil for the propagation of the Neisser bacillus, and, until the infection spreads or the glands of Bartholin become involved, she is apt to attribute any added discomfort to an exacerbation of the old-standing disorder, and hence delay visiting her physician. As a matter of fact the symptoms of an uncomplicated gonorrheal vulvitis, though more pronounced, are not easily distinguishable from those which are present in the nonspecific form.

The Rapid Spread of Gonorrheal Inflammation

The resultant conditions, however, are serious enough, the infection spreading within a few days to the ducts and glands, meatus and vagina, later still, perhaps, if neglected, to the uterus, tubes and peritoneum. Not infrequently the Bartholinian and inguinal glands are involved early. A woman complaining of stinging and burning upon urination, with soreness of the vulva and tenderness in the groin, will almost invariably be found suffering from gonorrhea. The secretions should be examined and the indicated treatment instituted at the earliest possible moment.

The physician should make a very guarded prognosis, especially when the infection is extensive, for once the pelvic organs are involved it is impossible to foretell the outcome. Long years of suffering or invalidism, sterility, the loss of one or both ovaries, or of the uterus and adnexa may follow a "simple gonorrhea." The latent form of this disorder must not be overlooked and no woman should be discharged as "cured" until all the secretions have been repeatedly examined microscopically and found normal.

The Early Treatment

When the vulva alone is involved the treatment, while energetic, is comparatively simple; when a vaginitis or urethritis coexists the procedure to be followed is more complicated. The primary essential is, of course, to destroy the gonococci and prevent extension of the infection. Great care must be taken to prevent the infected secretions from entering the vagina.

The vulva is first cleansed *thoroughly*, with a 1 in 2000 bichloride solution, a 25-percent argyrol or 2-percent solution of protargol. The vagina is then douched with two or three quarts of the bichloride solution, followed by a quart of normal saline solution. Then a cotton-wrapped applicator is dipped in a glass containing the argyrol or protargol solution, and the labia are swabbed over two or three times.

A thin pad of cotton, covered with sterile (or medicated) gauze, is then dusted thoroughly with xeroform and boric acid (in the proportion of 1 to 4); this is inserted between the labia and brought in contact with the entire vulvar surface.

I have been in the habit of inserting two or three candle drainage bougies into the vagina just before applying the pad, leaving the wick ends to protrude from the vulva and covering them with a pad of well-dusted cotton. In this way the vaginal mucosa is medicated continuously, and the melting bougie bathes the introitus and inner surfaces of the vulvæ with a bactericide. The vulvar dressing must be changed several times daily (always after urination) and the "T" bandage used to keep the pad in position. This should be discarded the moment it becomes soiled. A strip of three-inch gauze bandage serves excellently, and it is economical.

Treatment of the "Subsiding" Stage

As soon as the acute symptoms subside the affected area may be painted every third day with a silver-nitrate solution (25 grains to the ounce). The douches must be continued. At this stage I find invaluable an ointment of thuja, mercury bichloride and methylene-blue in lanolin and vaseline. Indeed, my last ten cases have been treated almost entirely with the douches and this combination: a solution of the three drugs being applied in place of the protargol or argyrol, and the ointment replacing the dusting powder. Under the treatment outlined I feel sure that results are secured more rapidly and in no instance has the infection extended. When the vagina is involved a thorough douching, followed by the application of the thuja, mercury bichloride and methylene-blue *solution* (1 in 500), and the insertion of two or three drainage bougies, is unquestionably the ideal treatment.

The patient must be warned of the staining qualities of the solution and should protect her underwear. Soaking in cold water will remove the stains, but soap should not be applied until discoloration has disappeared.

All clothes coming in contact with the parts *must be boiled*. The patient should be impressed with the necessity for disinfecting her hands, syringe nozzles, and other things which come in contact with the discharges, after each treatment. She should not use the family toilet or, if she does, should protect the seat. She should also have a separate towel.

Internal Treatment of Gonorrhea

The internal treatment is important. The most effective remedies are formin, arbutin, calcium sulphide, calomel with podophyllin, and laxative salines. The bowels *must* be kept active and pelvic congestion thus reduced. I usually order calomel, gr. 1-6, and podophyllin, gr. 1-12, half hourly for four to six doses every third evening, and phenolphthalein with sulphur and licorice extract at bedtime on other nights. A saline draught is taken each morning on rising. Every two hours the patient takes 1-6 grain of calcium sulphide and 1-3 grain of arbutin, with a little barley water, and three times a day a tablet containing formin, lithium carbonate and sodium benzoate. If the urethra is involved methylene-blue must be added.

Not infrequently the sulphocarbolates may be given advantageously. They are distinctly indicated if the urine contains indican and skatol and is abnormally acid. Small doses of gelseminine relieve the pain; hyoscyamine the nervous irritability. Occasionally scutellarin and cypripedin, in 1-2 grain doses, prove the best sedatives.

Inflammation of Bartholin's Glands

Should the glands of Bartholin be involved, the patient must be kept in bed, and hot, moist antiseptic compresses applied. Not infrequently the pain is severe enough to require the use of morphine. The mild hyoscine, morphine and cactin combination is preferable in every way to morphine alone.

The swelling is sometimes extensive—even the tissues about the anus being affected—and an angry, red areola will be observed to surround the mouth of the duct. The overlying skin is immovable. Pus formation is first apparent upon the inner side of the affected labium, and a free

opening should be made here early, care being taken to avoid the vulvovaginal bulb which lies just above the gland. With a small sharp curette or ear-spoon, scrape out the interior of the diseased gland and then irrigate the cavity with an antiseptic solution—as mercury bichloride, 1 in 2000, chinosol or thuja. Dry, touch with pure carbolic acid, neutralize with alcohol, dry again and pack with gauze saturated with euarol. If, after the use of carbolic acid, gauze saturated with echinacea is used as a packing, the prior use of alcohol is not required.

If the abscess is not found and treated it evacuates large quantities of pus through one or more openings, below the orifices, and the discharge usually contains gonococci. The fistulæ remain long after the acute symptoms have disappeared, and not uncommonly communicate with small abscesses or with a large common cavity. A purulent greenish or opaque fluid oozes persistently from the sinuses and is a constant source of danger, not alone to the woman, but to the male cohabiting with her.

In a certain percentage of cases the inguinal glands are involved and suppurate. Should the physician not see the patient until the chronic stage exists he should dissect out the gland, curet the sinuses, apply pure carbolic acid to the affected tract, and then pack with gauze, securing healing by granulation. Rarely, primary union can be secured by very thorough excision of the tissues involved and the insertion of ten-day catgut sutures.

It must be remembered that the ducts sometimes become affected, without the glands themselves suffering. Such areas are, of course, the seat of latent gonorrhea. If the opening of the duct is inflamed and a drop of pus exudes upon pressure the gland should be dissected out, and the duct split throughout its length. The after-treatment has been described. A simple catarrhal infection yields readily as a rule, to the injection, through a blunt-pointed hypodermatic needle, of peroxide of hydrogen and a subsequent instillation of thymol iodide in petrolatum, or a combination of thuja, one part; echinacea, one part; glycerin, one part, and water four parts.

The practician will do well to take no chances here; if a specific infection is present there is always a probability of an acute inflammation recurring, constant danger of infection of more important organs, and almost inevitable infection of the male consort.

Caution for the Young Physician

It may be well here to caution the young doctor not to tell his female patients the exact nature of the malady. While none of us have (or should have) the slightest sympathy with the loose-moralled man who carries the gonococcus home, we must remember that "to err is human." We are healers, not judges, and if by saying "You have, madam, a severe inflammation which requires very careful attention and necessitates temporary noncohabitation," we can save domestic turmoil—perhaps a divorce or even a tragedy—are we not justified in the reservation? Moreover, who can tell just where (or from whom) the gonococci came?

Should the patient prove insistent, tell her that inflammations of this character have various origins. Talk to her of the streptococcus, the staphylococcus, and other microorganisms, and assure her that cultures made from her secretions would undoubtedly reveal one or more varieties of these bacteria. It may be you will be asked to examine the husband. If you are, and find unmistakeable evidence of guilt, insist upon a full understanding, and *treat* the man on days when the wife *does not* come to the office. But, while being "wise as the serpent," do not forget to do your full duty as a physician and before the patient's leave your hands try to have inculcated such moral precepts (and dread of consequences) that they will "go and sin no more!"

(*To be continued.*)

The Prophylaxis of Cancer of the Rectum*

By J. RAWSON PENNINGTON, M. D., Chicago, Illinois
Professor of Rectal Diseases in the Chicago Policlinic

EDITORIAL NOTE.—In this important paper Dr. Pennington strongly emphasizes the importance of an early recognition of this disease on the part of the general practitioner. The article deserves the closest possible study.

I TAKE it we are all agreed as to the increasing frequency of cancer. At least it seems to me no other conclusion can be drawn from the following figures:

The Alarming Increase of Cancer

According to the 12th United States census, cancer appears to have increased to the extent of 12.1 deaths per 100,000 population in the previous decade. The recently issued Census Bulletin informs us that cancer increased from a total of 33,465 deaths in 1908 to 37,562 in 1909, and the death-rate increased from 74.3 to 77 per 100,000, the latter being the highest crude death-rate from the disease thus far recorded in the registration area of the United States. Moreover, the report continues, "the numerical increase in the deaths from cancer was not large for any particular state or city, but the most impressive feature is the widespread increase shared by all states and cities, with but few exceptions."

In Great Britain, so we learn from the book of Roger Williams, "The Natural History of Cancer," which—to use a somewhat overworked term—is a storehouse of facts, the deaths from cancer increased from 177 per million living in 1850, to 885 per million living in 1905.

Some authors claim the increase is apparent rather than real, and have explained it by various theories. The writer just mentioned disposes of the theories *seriatim*. The earliest objectors ascribed the increased mortality to mere increase in the number of persons living, but Williams points out that the futility of this is shown by the fact that, while the population barely doubled from 1850 to 1905, the mortality from cancer increased more than sixfold. As regards the average age of the population having advanced, the answer is that in modern times the saving of life has been confined mainly to the precancerous years.

Various writers claim the apparent increase to be the result of improved diagnosis and more careful death certification. The steady progressive increase during the long succession of years is too uniform, however, to corroborate this suggestion. Moreover, if improved diagnosis and death certification have caused additions to the total, which Williams does not deny, these very same conditions have lessened the number of alleged cancer deaths. As late as the year 1880 fibroid tumors, polypi, and lupus were classed with cancer.

Nor is the increase confined to the United States and Europe; it holds good also for Japan, India, and even for uncivilized countries. The belief current a few years ago that cancer is extremely rare in these latter regions proves, with increasing knowledge, to be unfounded. Renner, for instance, has recently called attention to the increase of cancer in his own time among the creoles of Sierra Leone, the British colony on the west coast of Africa. In short, cancer is one of several diseases which apparently is increasing by leaps and bounds in spite of our boasted progress in medicine, surgery, and hygiene. Its associates are insanity, together with other diseases of the nervous system as well as circulatory disorders.

Apart from its increased prevalence, the present death-rate from malignant disease is something dreadful to contemplate.

Some Cancer Statistics

Our anxiety in regard to malignant disease of the rectum is pardonable when we reflect that a good proportion of cancers

*Read before the 13th annual meeting of the American Proctologic Society, Los Angeles, Cal., June 22, 1911.

involve this region. Williams collected 25,196 cases of carcinoma from the mortality returns of England and Wales, finding that 9.6 percent in males and 5.3 percent in females were located in the rectum. The preponderance of male victims is shown also in the United States census of 1900, namely, 5.4 percent as against 3.5 percent. In this connection, Williams points out that the disporportion between the sexes has been steadily lessening ever since 1850. At this time it was 1 to 2.2, while for 1901–5 it was 1 to 1.3. He believes, if this disporportionate increase among males is not arrested, the affection will soon be equally prevalent in the sexes, or the comparative proportions even reversed, as is the case in Australia and New Zealand. As is well known, the preponderance of deaths in the female sex from cancer is due to the frequency with which the mammæ and uterus are involved. The corresponding organs in the male are rarely the seat of the disease, but for all other localities the male liability is the greater.

So much for statistics. With improved modes of living and sanitation, the black-death and the sweating-sickness have been extinguished, scurvy and leprosy have been practically stamped out in civilized communities, smallpox is robbed of all its terrors, the way to lessen malarial and yellow-fevers is pointed out, and some impression has been made upon the "great white plague"; yet cancer continues its fell ravages.

Is there anything that can be done to check this foe? Your speaker believes there is and that this Society may be made a powerful factor for good in such a crusade. In Germany a similar crusade has been started against cancer of the uterus by Winter. Agitating the subject both among the profession and the laity, it is estimated that the number of cases of inoperable cancer of this organ has been reduced over 30 percent as a result of calling attention to the early symptoms.

Ignorance as to Cause; Imperfect Diagnostic Methods

At the start we are confronted with the fact that the cause of cancer is still unknown. Cohnheim's embryonal theory, Ruffer's "cancer parasites," Russell's "fuchsin-bodies," Sanfelice's blastomyces, Doyen's micrococcus neoformans, not one of these meets all the requirements from an etiologic standpoint. At present, while a dispassionate review would lead one to conclude that the parasitic theory is the most probable, still, for the time being, we are compelled to bring in the Scotch verdict of "not proven."

But if there is any one thing known about cancer, it is the fact that in the beginning it is a local affection; later, after it has invaded the lymphatics, it may be said to be a general disease.

How necessary, then, to be able to attack the disease in its early stages, if we are to do so with any hope of success. Here, again, we meet with another difficulty, the fact, namely, that we have at present no means of diagnosis save microscopic examination of portions of the growth. While the technical part of our art has well-nigh reached perfection, the diagnostic part limps along far in the rear. The various refinements of serodiagnosis have been tested in cancer, with negative results, as well as the blood-picture and the hemolysis test.

In the portion of the human economy with which we are especially occupied in this Society, the difficulties of diagnosis are increased by the fact of the disease commencing insidiously in a cavity of the body. It is well known, of course, that cancer *per se* gives rise to no distinctive symptoms. We are, however, better off in this respect than the internist who attempts to diagnose the presence of a gastric carcinoma or one in the small bowel; for in the rectum the disease is at least accessible to vision through the proctoscope.

Coming now to cancer of the rectum particularly—while Allingham recorded a case of columnar epithelioma at the age of 12, and various observers have seen the disease in other young patients, still, in general, it is a disease peculiar to middle and old age. Of 2914 cases of rectal cancer in the male referred to by Williams, 2592 patients were over 45, as well as 2180 of

2533 female patients. In the male sex, again, the average age at which the onset was noted was 49.7 years, the minimum being 16.75 and the maximum 74; while in the female sex the average was 50.4 years, with a minimum of 21.8 and a maximum of 88 years.

Rectal and Uterine Carcinoma in the Cancerous Age

This brings me at once to the crux of my argument: that every person who has reached the socalled "cancerous age" should be examined periodically for evidence of commencing carcinoma, not necessarily of the rectum alone, but, in the female for example, of the uterus also. However, confining ourselves to the former viscus, the necessity for this examination is shown by the figures set forth by our associate, Dr. Tuttle, in his book: Of 600 cases of rectal carcinoma, only 6.7 percent involved the anus; 26.3 percent were located in the infraperitoneal and 67 percent in the supraperitoneal region. In other words, the majority of the tumors were so situated that they would give rise to no early symptoms of the disease, and thus, by the time they caused phenomena marked enough to attract the patient's attention and lead him to consult the surgeon, the period for operation, with a reasonable expectation of permanent cure, has passed by. Neither the patient nor the practitioner should allow their interest in these periodic examinations to slacken.

An instance showing the necessity for long-continued inspections was recently narrated by Powers of Denver. In 1889 he assisted at an operation for removal of the breast in a woman of 42. The method used was the Volkmann excision and clearing out of the axillary contents. The growth was about the size of a small apple, and the nodes in the axilla were hyperplastic though not malignant. During the first year the patient was examined every three months, and in the second year every four months. After the second year careful examination of the scar was made every six months, yet there was no evidence of relapse until December, 1907, when a small hard mass was found and excised which microscopic examination showed to be carcinoma.

Responsibility of the Family Physician

Here the responsibility of the family physician is great, for he is usually the first one to be consulted. We fear he, too, will need some instruction as well as the laity. He must not content himself (as in dozens of cases we can recall) with a perfunctory diagnosis of "piles," without even an inspection of the anal region, and an equally perfunctory prescription of gallic acid ointment or some similar agent. The bowel must be inspected through the proctoscope; and this involves the possession of an appropriate armamentarium, and in turn the ability to interpret the appearances seen through the instrument.

In cases of doubt, the patient's life is not to be jeoparded, but advantage taken of consultation with the specialist. There is no reason why the splendid record achieved in the past decade in the early recognition of appendicitis should not be repeated in the case of rectal carcinoma. The family physician no longer contents himself with a finding of "inflammation of the bowels" or "typhlitis," or the like, but forewarned, he appraises the symptoms at their true value and either operates himself or sends the patient to the surgeon in due time.

J. B. Murphy, in his paper on "Peritonitis—General, Free, Suppurative," writes as follows, which is pertinent to the phase under discussion: "The author wishes to thank the family physicians for reference of cases, and to congratulate them on their early diagnosis and for prompt demand for surgical relief in these cases; to them, he feels, belongs much of the credit for the good results secured," etc.

Once any suspicious appearance is detected during such a proctoscopic examination, effective measures are to be undertaken immediately. There must be no delay—one of the banes of the surgeon at the present time is the procrastinating family physician who keeps a patient under observation for weeks or months while he is making up his mind whether a swelling—in the breast, let us say—is malignant.

When finally he decides that it is and the patient is referred for operation, there frequently is, by this time, involvement of all the tributary lymph-nodes, general cachexia, and all the other developments—in other words, the golden opportunity has been allowed to slip by.

Prevention and Education

The subject of prevention of disease is one close to the hearts of the populace, as witness the propaganda of the American Medical Association, the activities of the state and municipal boards of health, and the flood of books and magazine articles treating of healthful living, the lessening of disease, and cognate topics. And here, it seems to me, is a great field for the activities of our own Society. Lectures should be delivered in language "understanded of the people," calling their attention to the ravages of malignant disease, with special attention to the rectum, and the splendid results afforded by early and radical intervention. Moreover, tracts and articles should be written, in equally simple language, promulgating such data.

The laity must be warned of the dangerous popular custom which leads nearly everyone experiencing discomfort in the rectum to make his own diagnosis of "piles" and to apply his own therapeutics in the shape of one of the many socalled "pile cures" found on the market.

Nor are the people alone in this superficial view of the subject. In his paper describing the technic and results in 120 resections of the rectum for malignant disease, W. J. Mayo observes: "It is an unfortunate fact that, in the majority of cases, cancer of the rectum is not recognized in time to obtain a radical cure. When one considers that such tumors are, as a rule, within easy reach of the examining finger and may readily be inspected with the proctoscope, it indicates a lamentable carelessness on the part of the profession and gives point to the saying that most errors in diagnosis are due to careless examination rather than to lack of knowledge." Nearly 10 percent of the cases subjected at the Mayo hospital to resection had been recently operated on for piles or had been subjected to a futile dilatation with bougies for supposed stricture.

Gynecologists tell us that from 65 to 80 percent of all cases of carcinoma of the uterus are inoperable when first seen by them, because the patients looked upon the leucorrhea and hemorrhage as "delayed change of life," irregular menstruation or something of the sort.

In the same way, the public must be warned of the insidious onset of rectal carcinoma, that passage of blood and mucus in an elderly individual means, in many instances, something infinitely more serious than hemorrhoids. People must be warned also of the necessity for adequate bowel movements, avoiding constipation with its attendant evil of irritation from retained feces.

Some of the Obstacles in the Way

Lord Bacon says there are four chief obstacles in the way of truth: "The plea of an authority that does not deserve the name, long-standing habit, popular prejudice, and an ingrained ignorance that masquerades as so much knowledge."

In the proposed crusade we shall probably have to deal largely with the third of these hindrances—popular prejudice. The average layman has had relatives or friends die of cancer and looks upon the disease as the equivalent of a death-warrant. If told he has cancer, he is prone to seek aid from various types of charlatans or nostrums. Many of these nostrums have been exposed lately in *The Journal of the American Medical Association*, and their composition shows that their use would be ludicrous, were it not for the pitiful aspect of the situation. As a last resort the surgeon is consulted, unfortunately too late for anything but palliative measures.

It is a most distressing characteristic of human nature that the very individuals one would least suspect—the leaders in their respective communities—are the ones to be led astray by the false gods of Eddyism, Dowieism, and the like. The keen business man, the clergyman, the lawyer or the judge are the ones carrying buckeyes, rheumatism rings or otherridiculous preventives.

The aversion to the knife so commonly seen is another strange failing. Before the days of anesthetics, when the struggling patient was held down by strong men and his shrieks unnerved the operator and alarmed the spectators, so only surgeons of iron will and determination could carry out operative treatment, one could understand this distrust of radical measures. But, with the refinements of anesthesia by modern methods (the drop-method of administering ether, and so on), when the subject loses consciousness, to awake with the diseased area ablated and nothing to testify to the operation save some pain and slight smarting during the period of wound repair, the fear of the knife in otherwise intelligent people is strange indeed.

All of us have seen instances of women with a tumor in the breast (sometimes no doubt of a benign nature), who have consulted some charlatan advertising that "no knife is used," and who have suffered the tortures of the damned for weeks and weeks after the use of Vienna paste or plasters or caustic "arrows" until at last the mammary gland sloughed away, leaving an enormous, ragged, stinking cavity. No knife, forsooth! Better the knife, I say, than every moment of existence, day and night, made hideous by such infernal procedures.

So the problem, as may be seen, is no small one. I said a moment ago that cancer in the beginning is a local disease. This granted, then early and thorough removal must lead to a cure.. If success attends a good proportion of early removals for cancer in other portions of the body, then an equally gratifying success will attend intervention for rectal cancer carried out correspondingly early. In his paper already referred to, Mayo reports cases in which the operated individuals are alive and well now, five, nearly eight, and nearly nine years after operation.

The Role of Cicatrices and of Inflammatory Processes

This leads me to allude to another phase of the subject. It has been shown of late that a large proportion of malignant growths originate in scar-tissue. We owe to the Mayo clinic the demonstration of this as well as many other invaluable facts. In cancer of the stomach, for example, these operators found, from microscopic examination, that no less than 62 percent of the victims showed evidence of a previous ulcer. In rectal cancer, patients frequently give a history of previous operations on the part. Does the cancer occur in the scar left from an operation for hemorrhoids done by one of the commoner methods—ligature, clamp and cautery, or some other technic leaving much scar-tissue and sometimes stricture? May it not occasionally be engrafted on the scar following the usual incision method of operating for fistula? All of us have seen large and ugly scars, from time to time, following this method.

Surgeons are bending all their efforts of late toward securing healing *per primam*, with linear cicatrices if possible. Here is a suggestion for us in our own work; secure smooth healing by resorting only to such procedures as leave the minimum of cicatricial tissue, hence the least-possible nidus for mischief in the future.

Along a similar line, J. B. Murphy, in the preface to his "Yearbook of Surgery," states that chronic infection of the tonsils, urinary apparatus, intestinal catarrhs, etc., are not sufficiently appreciated for their destructive, chronic, poisoning effects. Endarteritis, endo- and myocarditis, nephritis, etc., are the direct consequences of such infections. Heretofore we have been satisfied with diagnosing the secondary disease, failing to look for or to locate the etiologic factor, as well as neglecting to remove it. Dr. Murphy goes on to say that chronic infections must be eradicated, thus avoiding the baneful and incurable secondary disease. We must act on such advice by attacking the cancer in its precancerous stage—to use a Hibernicism.

With the cooperation of the public, it seems to me, we should learn much about cancer in its early stages; diagnostic methods can be put to the crucial test; the technic will be improved; possibly the cause of the disease unearthed. To educate the public, we must—as has been well said—"organize, systematize, deputize, energize, supervise, and economize."

Ulcer of the Stomach and Intestines

Some Practical Considerations

By BOARDMAN REED, M. D., Alhambra, California
Author of "Diseases of the Stomach and Intestines"

EDITORIAL NOTE.—We like Dr. Reed's conservative position regarding alimentary-tract ulcers. He says: "Ulcer of the stomach or the duodenum is nearly always curable without surgery when treated early, properly, and persistently, for a sufficient time." But he does not minimize the dangers of neglect. This is our view exactly. Next month Dr. John Dill Robertson will tell us of the surgical viewpoint. Read both papers.

ULCER of either the stomach or the duodenum is nearly always curable without surgery when treated early, properly, and persistently for a sufficient time. When neglected till it becomes old and chronic, it is often fatal by hemorrhage, perforation or carcinomatous degeneration, despite medical and surgical endeavor.

In no disease is it more important to make the diagnosis early or at least to begin the proper treatment promptly, even on the mere suspicion of the presence of an ulcer. It is better, of course, to make a reasonably sure diagnosis, with or without the help of a specialist, before instituting treatment, as this enables the physician to persevere with the right measures without doubt or wavering until the cure has been well established.

But it is a striking fact that, while to treat ulcer for something else may easily prove a fatal mistake, to treat for ulcer a disease which later proves to be something else (such as simple dyspepsia, gallstones, crises of tabes, or even cancer) is not likely to do any permanent harm; and to treat hyperchlorhydria for ulcer is the very surest way to cure it speedily. Whenever there is acute pain in the abdomen coming on regularly either immediately or one to four hours after eating solid food, whether there is vomiting or not, or whether there is or is not tenderness on pressure, it is safe to try the ulcer treatment.

The most common mistake is the prescribing of hydrochloric acid, pepsin, or the like, or of some hot stimulating mixture for supposed ordinary indigestion; and it may be said that this always aggravates all the symptoms of ulcer so markedly that patients generally refuse to continue it, even if not ordered stopped.

The correct treatment for ulcer, on the other hand, namely, rest in bed, with exclusive rectal feeding for at least one week, followed by a diet of milk, with a very gradual return to the ordinary meals; and, for medication, 30- to 40-grain doses of bismuth subcarbonate with 50- to 60-grain doses of bicarbonate of sodium or other equivalent alkali, in a tumbler of water, three or four times a day, will almost invariablly bring immediate relief. And this relief generally is very positive and decided, except in some of the old chronic cases, and these may not yield to anything short of an operation. It is safer, then, to continue the milk diet a month or two and never let the patient return to the irrational habits which brought on the trouble originally, including eating too much meat—the meat extracts especially—and food highly seasoned with hot condiments.

It is proper to mention that in my own fairly large experience this line of treatment has almost never failed to bring gratifying results, still, Lenhartz, of Germany, has lately lauded a different diet in these cases, one which calls for a much larger amount of rich, stimulating proteids, including eggs and some meat. The value of such a variation of the dietetic treatment in some cases has been confirmed by careful observers in this country. The cases in which this method succeeded, after the other one failed, were probably some of the more chronic ones which had continued so long that the patients had become seriously reduced and debilitated, so that recuperation was possible only after a course of

unusually strengthening, building-up measures.

In these brief suggestions I am not attempting a full discussion of gastric and intestinal ulcer. This condition is treated of exhaustively in my work on gastro-intestinal diseases[1] as well as in a half dozen or more other excellent books on the subject now published in English. Every honest physician who tries to keep abreast of the times and do the best possible for his patients is sure to possess one or more of these works and to consult them frequently. My main thought in this article is to call attention prominently to a few of the salient points only about a subject which is certainly of very unusual importance.

I have not described here the differences between ulcer of the stomach and ulcer of the duodenum, because they are not marked and the differential diagnosis is often very difficult even for an expert; sometimes impossible. The treatment is substantially the same for both, the dietetic part being by far the most important. The medicines may be gradually withdrawn after ten days and the alkali much sooner—after two or three days—when there are no evidences, either as a result of an analysis of the stomach-contents or from a persistence or return of the burning pain, that too much hydrochloric acid is being secreted.

Physicians' Account and Record Systems

By H. J. ACHARD, M. D., Chicago, Illinois

EDITORIAL NOTE.—The author of this paper has, for many months, made a careful and detailed study of the principal physicians' account systems on the market and presents here the results of his investigations. The more simply and withal the more completely physicians' records are kept, the better will be the financial results. A number of the systems described are advertised in this journal, and we advise our readers to correspond with the firms supplying them if they contemplate investing in this direction.

II

An Excellent Loose-Leaf System

THE Keith Physician's Case Record and Account System is a loose-leaf system providing for daybook and ledger entries as well as for complete case records. The records are kept in a fire-proof steel cabinet which can be locked and "is provided with metal trays containing pockets in which are arranged metal index holders. Each one of these holders contains an index folder, and the index folders complete an approved alphabetical index for the filing of case records and accounts."

The blanks used in this system are carried in a leather pocket case with slits for four pads: visiting list, case record, accident record, prescription pad. The visiting list takes the place of the daybook, permitting the planning and recording of the day's work, and it also shows memoranda of the debits and credits of the patients to be visited. Each day's work is transferred to the monthly cards on which the charges and receipts of day and month are recorded.

This is an important and valuable feature of this and the two other systems to be considered. It is not only necessary for the physician to plan his day's work in advance as far as is possible, but he should also have some ready means of determining for each day how many and which patients he saw, how much money he received, and how much he booked. The daily lists in these last three systems are convenient, easy to handle and easy to transfer to the monthly balance sheets.

The case-record sheets of the Keith system provide space for particulars concerning the patient and for the charge account, also for clinical data including diagnosis and treatment. The lower half of the slips is intended for the original prescription, the carbon copy to be given to the patient for filling. If a case re-

[1] "Diseases of the Stomach and Intestines." E. B. Treat & Co, 241-3 W. 23d St., New York. 1911.

quires prolonged attendance, there are record slips for continued cases. There are also accident blanks with skeleton forms on the back for graphic records. There are blanks for daily records of temperature, pulse, etc., on the back of which directions for giving medicines to the patient can be entered in great detail. This also is an excellent and convenient innovation, for I have found it advisable in the course of my experience to leave written directions with my patients for the taking of medicines and for other treatment. A number of other sheets are included in this very useful and handy system. It is incomplete for the specialist in so far as the blanks provided are intended only for the general practitioner and the facilities for graphical records are limited. The system has the advantage of being moderate in price, of being compact and easy to keep, and of being fully adapted for the needs of the general practitioner.

Two Elaborate Systems

Among all the many physicians' systems on the market, there are two which, while at first sight most complicated and cumbersome, are, in actual use, everything considered, unusually efficient. Unfortunately, the expense of their first instalment is considerable, amounting to $100 and more. However, it may be paid for in small monthly instalments.

The system of the American Case and Register Company, of Salem, Ohio, is represented as the *ne plus ultra* of account systems and case-records available.

The record slips in this system are furnished in the greatest possible variety, not only for general-practice cases requiring prolonged attention, cases requiring brief attention, etc., but also for all imaginable specialities—tuberculosis, surgical, accident, rectal, gynecologic, eye, ear, nose and throat, stomach, genitourinary; further, there are records for sputum examinations, x-ray treatment, blood examination, skin diseases, vaccination, insurance examination, and so forth. There are blanks for planning the daily work, blanks for the graphical recording of anatomical findings, and, in fact, blanks for every conceivable purpose, including statements and reminders, the latter feature being common to many of the systems under discussion. In this system, as well as in the Keith system, the preservation of the original prescription (the carbon copy being handed to the patient) is made a feature—one of importance in case of eventual litigation.

Very similar to the American System is the McCaskey Physicians' and Surgeons' System, Alliance, Ohio, which emphasizes especially the strict individualization of each patient. Like the "American", it offers the greatest possible variety of record blanks, and its account system is excellent. I am constrained to say that both systems appear to me eminently complete and suitable, and a comparison of their relative merits would be uncalled for. In both systems the records are filed in envelopes which, like the envelopes of the Physicians' Drug News System, contain on the face the financial status of the patient, and the total records are housed in beautiful desks, cabinets or safes that are carefully and excellently constructed.

I find it more difficult than I had conjectured to describe adequately these excellently devised systems, which in their completeness and ease of maintenance leave little or nothing to be desired. My readers will be able to form some idea from the illustrations shown in advertisements of these concerns in all medical journals, and the firms which have put these as well as all the other systems on the market are most courteous in affording all possible information and illustration of their facilities for the physician. A number of the systems which I have described carry advertisements in this journal, and their outfits are usually illustrated in these announcements.

If we attempt to draw comparisons between the different classes of systems, their ease of operation, their legality, and all that, we can hardly avoid the conclusion that bound account and record books have the disadvantage of being ill adapted for use outside of the office. They require a preliminary writing of notes and memoranda, the entering of which is sooner or later postponed and ultimately omitted,

and if the notes and memoranda are destroyed after copying, the original entries are thereby lost.

The card-index systems, on the other hand, are convenient, easy to handle, and permit of original entry of charges and historical data at the time the service is rendered. They may have the disadvantage of requiring two entries, one on the ledger card and one on the history-card, but this can be obviated by using the back of the ledger card for records. The small cards are in so far of less value as they require special cards with diagrams, but in the case of an elastic system this is hardly a difficulty.

The loose-sheet records, as described in the last four systems, are perhaps the best to employ. They permit of complete and exact records of services and charges in the simplest possible manner, they are handled with ease, and enable physicians to keep their accounts constantly posted to date with the slightest amount of work. Barring the last two, the primary expense is inconsiderable, but we can readily believe the manufacturers of the latter when they assure us that their outfits pay for themselves in a short time in better collections and greater convenience.

The Legal Status

According to Dr. Wm. F. Baker ("Physicians' Business Methods," Philadelphia), "the law requires that an account book of original entry must show in plain language and figures, which can be read by judge and jury without personal explanation, the name of the person against whom the charge is made, the name of the person for or to whom the services or supplies are rendered, the date, the description of services, and the charge must be definitely carried out in dollars and cents. The entries must also be made while the transaction is still fresh in the mind—not later than the next day."

The Physicians' Record Company have kindly communicated to me the opinion of their attorney, as follows: "To make book accounts competent, it must be made to appear that the book or the books contain original entries of transactions pertinent to the business in question; that the entries were made in their regular course of business, at or near the time the transactions were had; that the entries were made by one authorized to make them; that he himself did the acts recorded or entered them from the information derived from one having knowledge and authority; that the transactions were regularly entered and the books correctly kept. Usually the person who made the entries must be produced to establish their truth or his absence must be accounted for."

I present this legal opinion, because objection has been made that loose-leaf systems or any kind of elastic systems are not admitted as evidence. This is manifestly erroneous, and the language is very clear on the point that all that is required is the record of original entry, whether this be made in a book, on a card, or on the barn-door. The last has actually happened, and the evidence was admitted when the barn-door showing the disputed memorandum was produced in court.

The idea principally followed in almost all of the more modern systems which I have described is that of making a complete record of the transaction between physician and patient at the time the physician's or surgeon's services are rendered, covering not only the nature of the services rendered and a memorandum of the treatment given, whether medical or surgical or special, but also a memorandum of any cash that may have been paid or of a debit item which is to be entered.

We have seen that the law requires that such records be made within twenty-four hours from the time when the services are rendered, and the nature of the present-day systems renders it almost a matter of course that the memoranda be recorded either in the office or at the bedside, as the case may be, but always in the presence of the patient. This in itself is a very important point in favor of keeping such records, inasmuch as it at once legalizes the business method of the physician, because it renders the accounts and records acceptable under the law if at any time legal complications should arise. I have repeatedly spoken of the desirability of

not only writing prescriptions in duplicate, but of preserving the original prescription, and to handing the duplicate to the patient to have it filled. This is for the reason (as I have been informed by a lawyer) that carbon copies are not admissible as evidence, the original memoranda being required in all cases.

The Respect Engendered by "System"

A further point in favor of making a careful record in the presence of the patient lies in the greater respect engendered in the latter, not alone for the business methods of the physician, but more so for his professional methods, because he appreciates the fact that his physician makes notes of the clinical findings, of the history and complaints of his case, appreciating it in his later visits if the physician can turn to carefully kept records and refer to symptoms which would otherwise have slipped his mind, and which yet appeared of considerable importance to the patient. This point alone often would have repaid me for the slight effort and time required to take notes, because the satisfaction of the patients, when they find that their histories are remembered and recorded, is so evident that they speak of it to their friends; and the physician who keeps such records and is therefore in a position to remember all about his patients will gain materially, not only in immediate cash returns, but in the extension of his practice.

Another point which I wish to refer to is the value of graphical records, explanatory of the notes, on physical examination of our patients. Dr. Carl E. Black of Jacksonville, Illinois, who uses an elaborate record card-system, which he has evolved for his needs, in the course of many years, uses rubber stamps showing the outline of the different portions of the body. Such rubber stamps are useful for those physicians who do not for any reason invest in one of the systems which supply diagrams, and they can be procured from the Barton Manufacturing Company of New York, in designs covering all the general and special regions of the human body. If nothing else is recorded in this manner, the result of the chest examination should most certainly be noted down diagrammatically, because it completes the record of the case materially. In the more elaborate systems which I have described these diagrams are provided for.

While I have limited myself almost exclusively, in this paper, to the business side of physicians' records, the keeping of case-records has of necessity been mentioned here and there. This is not only of importance for the physicians' own sake, but also for the reason that carefully kept case-records will enable us to obtain a clearer view and more exact knowledge of diseases which we are called upon to treat, and of the results of certain forms of treatment. It will also enable us to advance the sum total of medical knowledge by making it possible for us to prove the truth and correctness of our treatment and of our observations and by communicating these to our brother physicians at medical conventions.

The keeping of case-records is an art which has been handed down to us from Hippocrates, whose histories are distinguished by their exactness and by his shrewd observation and judgment. In the case of the general practician, it has become a lost art in a very considerable degree, and it is to be sincerely hoped that it will soon be regained, for the greater advancement of our power to benefit those who place themselves in our charge, and for the greater benefit of mankind.

Guaiacol and Related Substances

Especially Concerning Their Mode of Administration

By NORMAN ROBERTS, M. D., Alexandria, Virginia

EDITORIAL NOTE.—This is an important paper, and should supply much food for thought and good "meat" to be inwardly digested. Especially is this true with regard to the mode of administering guaiacol, which has a peculiar antipyretic action when applied to the skin, as referred to in the comment, and further studies in another article to be found in the Miscellaneous department.

CREOSOTE and other guaiacol-containing substances have, in the treatment of tuberculosis, a long-standing reputation, which, though, is lessened by their evil tendency to upset the alimentary canal when they are administered by the mouth in doses sufficient to produce their full therapeutic effect. Attempts to minimize this defect by admixtures and by combining the active principles as carbonates, sulfonates, etc., have not yet come up to the standard of success. In the absence of a nonirritant guaiacol, and in view of the crying need which guaiacol partially satisfies, we should make more use, than now is the case, of other modes of administration of guaiacol, particularly by the skin.

When guaiacol is freely applied to a considerable area of the skin, on gauze or thin flannel under an impervious covering (oil-silk, sheet rubber, or paraffined paper), enough is absorbed to charge the blood heavily, as is evidenced by the strong odor of the drug in the urine and on the breath. It is probable, moreover, that, if the application is made as near as possible to the tuberculous area (for instance, to the chest-wall over an infiltrated apex), the lesion gets a double dose of the remedy, through the general circulation on the one hand, and through local diffusion on the other. Again, the dermatitis which sometimes results from the overaction of the guaiacol on the skin[1] acts beneficially on the principle of counterirritation; whereas the gastro-enteritis often produced when guaiacol is administered by the mouth is an unmixed and often a great evil. Furthermore, when one skin area rebels, another can be substituted (whereas, in the human subject, there is but one stomach); hence large amounts can be administered through the skin for long periods of time, continuously or with short rests.

From the standpoint of guaiacol therapy, there are three classes of tuberculous cases, namely: First, those in which the good effect of the remedy (if any) is outweighed by the bad; second, those in which the remedy is useful as a palliative, stimulating nutrition and relieving symptoms; and, third, those in which, when the remedy is administered early and adequately and with proper treatment of the patient in other respects, the disease (*post hoc* or *propter hoc*) subsides promptly and permanently. If the practice of administering guaiacol by the skin instead of by the mouth were to become general, we should soon see a large fraction of the first class transferred to the second and probably even a larger to the third. To which class a given patient belongs cannot be determined except by direct trial, but the results in the successful cases justify the attempt wherever there seems to be any hope whatever.

It must be admitted that the treatment is somewhat heroic. The skin may be irritated and at times feel very uncomfortable, while the patient is the center and source of a strong ham-like odor that causes him to be snap-diagnosed and shunned.[2]

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[1] Guaiacol is much less irritating to the skin than creosote, a fact which may make all the difference between success and failure in a given case. Most subjects of tuberculosis are weak in the "spine" as well as in the lungs, and will not stand continued discomfort.

[2] Incidentally, another argument against the "home" or "ambulant" treatment of tuberculosis. A person with tuberculosis is essentially different from normal human beings. It is a violation of a law of nature for him to be closely associated with them; and both he and they suffer in many respects if this law is violated.

In these latter days of phthisiophobia, therapeutic nihilism, mental healing, 'pathies, and general mollycoddleism and ladylikeness, the drawbacks mentioned are perhaps enough to account for the unpopularity of the skin-route administration. Moreover, it is conceivable that the constant presence in the circulation of large quantities of an irritant drug would damage other organs, for example, the kidneys, unless the patient were carefully watched. But there seems to be no other way in which an adequate quantity of guaiacol can be gotten into the system with so little disturbance of function in general or with so much therapeutic effect.

Much of the difference of opinion with respect to guaicaol is due to its variability as met with in commerce. (This, unfortunately, is true of most drugs.) Most of the guaiacol and creosote which I personally have used were of known purity; whereas Willard Ohliger (Proc. Mich. Pharm. Ass'n, 1906, p. 46; abstract in Bull. No. 58, Hygien. Laborat., U. S. P. and M. H. S., Washington, p. 251) "found most samples" of creosote "to be coaltar creosote, a dangerous and reprehensible substitution." Similar statements are made with respect to other related drugs. Indeed, "pure" creosote itself is a substance of very varied and only partly studied composition, and not by any means a proper substitute for guaiacol, which latter is a definite chemical compound, of the formula C_6H_4. OH. OCH_3 [1 : 2]. It would appear that not sufficient attention has yet been paid to the isolation of the various constituents of creosote, nor (except partly for guaiacol) to a detailed study of their therapeutic effects. Until this is done, therapeutists who desire the best results should discontinue the use of creosote in favor of guaiacol where powerful and exact effects are wanted. And where, as in early tuberculosis, it is especially important to get the maximum of therapeutic effect with the minimum of incidental damage, the guaiacol should be administered through the skin.

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[The history of creosote is an interesting one, and some two years ago it occupied the writer's spare moments for several weeks. From this literary study, which was never published, the following notes are taken:

After Reichenbach, in 1832, had prepared creosote from beechwood, its marked antiseptic properties were soon made use of therapeutically. Since the local use of creosote in aqueous solution caused ulcers to clean up, the naive therapeutic ideas of the time argued therefrom that it would be of value for the purpose of cleaning a suppurating tuberculous lung. Reichenbach himself had suggested the use of the preparation in hemorrhage and diarrhea, because of its astringent action. Having used the remedy successfully in two cases of hemoptysis as well as in the intestinal hemorrhage and diarrhea of consumptives, that is, in the accidents of phthisis, it was soon employed for the treatment of the phthisis itself, and this with sufficient success to insure its renown to spread rapidly through all Germany, and even to France and England.

From the beginning, the opinions of writers were divided and even diametrically opposed. While some hailed in the drug a specific for a disease that hitherto had resisted all efforts of treatment, others denied any curative or even beneficial action, and a few authors even published unfavorable reports. Nevertheless, creosote acquired such a degree of notoriety that its application may be said to have been limited only by the number of patients, being employed for every conceivable ailment, almost.

In 1835 Martin Solon was requested by the French Academy of Medicine to investigate the new remedy. His strangely inefficient experiments naturally produced no results, He submitted an unfavorable report, in which he asserted that creosote was not more efficacious against chronic and skin diseases, against cancer and phthisis, than all the remedies which had been used so far. It appeared, however, to be of service in preserving normal and pathological anatomical specimens.

As a result of this unfavorable report, together with several reports of fatal cases of poisoning from creosote, the drug fell into disuse, until in 1877 Bouchard and

Gimbert, two French physicians, influenced its adoption for the treatment of phthisis. They reported upon 93 cases treated with creosote with the result of 20 percent of cures and 30 percent of improvement. They claimed that the action of creosote was evidenced in diminished expectoration, cough, fever, and night sweats, in stimulation of the appetite and of the general condition, in local improvement in the lung. The formula which they used was: Creosote, 13.5; tincture of gentian, 30; alcohol, 250; malaga wine, 1000. After this favorable report, creosote was again employed in Germany and in England, and some favorable reports were published from the Charité in Berlin.

With the discovery of the tubercle bacillus, the action of the drug upon the growth and virulence of the bacillus was naturally investigated, and was found to be inefficient, especially by Cornet. Although it was realized that a sufficiency of creosote could not be introduced into the tuberculous organism to kill the tubercle bacilli or even to inhibit their growth without injuring the organs, some authors claimed that the drug acted especially as an intestinal antiseptic and by improving the appetite. It was also found that the bronchial irritation and the amount of expectoration were favorably influenced, and that creosote exerted a beneficial effect upon the concomitant mixed infections of phthisis. One report from Leube's Clinic in Wuerzburg offered the conclusion that in a beginning phthisis creosote does excellent service and is not surpassed by any other remedy. In advanced cases, it is not only useless but may even cause disagreeable and possibly dangerous symptoms.

In 1887 Sahli, in Bern, argued that the favorable action, in phthisis, of creosote—which, as mentioned by Dr. Roberts, is a complex body of but imperfectly understood chemistry—could probably be obtained by the one constituent of the drug which is constant and which is a definite chemical compound; and he thought, in fact, to have obtained equally satisfactory results from guaiacol as from creosote. Since then the modifications and salts in which creosote has been prepared for administration have been many, and while it cannot be called a specific, it holds with many practitioners and with some prominent clinicians high rank as an important remedy in the armamentarium for phthisiotherapeutics.

Unfortunately, the administration of creosote or of any of its derivatives cannot be continued in the required doses for a sufficient length of time without injury to the digestion. While at first in almost every case the appetite is improved, at least after the first distaste for the drug has been overcome, and while therewith the general nutrition is raised, after a while there occurs an irritation of the gastric and intestinal mucosa, and if now the use of the drug is persisted in without interruption, the appetite will fail. Largely for this reason, it has been suggested that the drug be administered in the manner outlined in Dr. Roberts' paper.

Guaiacol had long since been used locally, although not for the general guaiacol purpose, but rather because it was found that its external application exerted an antipyretic and an analgesic effect. Guaiacol, which is less toxic than creosote, has therefore been used for allaying fever by painting over the skin with one Gram or less of the pure liquid, or one cubic centimeter of a 25-percent solution in alcohol; also for analgesia in complicating neuritis or intercostal neuralgia. In larger doses, repeated daily, it may, however, produce collapse, and therefore cannot altogether be recommended for this purpose.

J. Ridge reported, in *The British Medical Journal* for 1903, on his experiences with guaiacol dissolved in olive oil (1 in 80) in the treatment of variola, having applied this oily solution at intervals of four hours to the affected skin. The results were decidedly beneficial, not only upon skin lesions but also upon the fever. Out of 44 cases of confluent variola only one terminated fatally, which favorable result was ascribed by the author to the guaiacol treatment.

Hecht recommended, in *Therapie der Gegenwart*, 1909, that 10-percent dilutions of the drug should be used, and he found this strength of the drug in an ointment base

to work well in herpes zoster due to neuritis, both on the skin lesions and on the pain. It was also found useful as a 10-percent solution in spirit of camphor in nervous pruritus, itching skin affections, as also in erysipelas.

Hecht used guaiacol locally in all sorts of cutaneous diseases. He further found that guaiacol, as a 10-percent ointment, has a good effect upon the fever, even in advanced cases of phthisis not only reducing the temperature for hours, but shortening its duration. It is useful in relieving the chest- and back-ache of tuberculous patients. He further found it, mixed with vasogen, of good service in tuberculosis of the bronchial and mesenteric glands of children. He claims that with proper precautions the unfavorable effects previously observed after the use of excessive amounts could be avoided, and that the local use of guaiacol should be established in medical practice more definitely than it is.

Many other authors have reported in recent years on this form of administration of guaiacol. Dr. Roberts' interesting paper on the subject is based on his personal experiences, and we can fully coincide with him regarding the good effects observed. We should like to have our readers adopt this mode of administering guaiacol, not only in the case of tuberculous patients, but also in skin diseases, and to report to us.—Ed.]

Simple Benign Adenoma of the Deep Urethra

By G. FRANK LYDSTON, M. D., Chicago, Illinois

Professor of Surgical Diseases of the Genitourinary Organs, Medical Department, University of Illinois

IN view of the frequency with which adenoma in the form of circumscribed growths or tumors is found in the prostate proper, it is remarkable that cases are not oftener met with in which the adenoma obtrudes itself upon the free surface of the mucosa of the deep urethra. I believe, however, that, if more care were taken in exploration and urethroscopy, these growths would be oftener found.

It has been my fortune to encounter, on several occasions, adenomatous growths in this portion of the canal. The tumors produce the same phenomena as other obstructive conditions in the deep urethra, namely, obstruction to micturition, and occasionally pain and hematuria. The severity of the symptoms naturally depends on the size of the growth. The following cases are in point:

A young man of 25 presented himself, complaining of frequent and painful micturition, the urine being purulent, and sometimes bloody. There was no history of venereal disease. Exploration with the sounds and *bougies a boule* showed the urethra to be extremely sensitive. The deep urethra bled at the slightest manipulation. There was pronounced spasm and pain in the membranous portion. By the application of cocaine and adrenalin chloride, it became possible to explore the deeper portion of the canal.

The prostatic urethra was found to be encroached upon by a growth which at its anterior extremity seemed to be about the size of a large pea. At the base of this growth, anteriorly and posteriorly, were two smaller ones, the various tumors making a mass which was easily outlined by means of the urethroscope. On account of the extreme irritability of the bladder and the long duration of the symptoms, it was deemed advisable to remove the tumors by perineal section, to be followed by a few days' drainage, which was accordingly done.

The growths were removed without the slightest difficulty, being readily shelled out by the finger. They were covered with attenuated mucous membrane. The flaps of mucous membrane left behind, after their removal, were trimmed away by the scissors guided by the finger. The microscope showed the growths to be simple adenoma, similar to simple prostatic adenomata.

I have had but three other cases in which the growths were of considerable size. In one of these the entire mass was somewhat larger than a hazelnut, producing considerable urinary obstruction, and quite free bleeding at the end of micturition. Pain was so severe at this time that vesical calculus was suspected. In a number of instances where I have performed perineal section for other conditions, I have found adenomatous growths of small size in the pars prostatica, and have removed them with the curette.

Since calling attention, some years ago, to deep urethral adenoma, my experience has tended still further to convince me that the condition is more common than is generally supposed, although it is rarely marked enough to produce symptoms attracting the subject's attention.

The Nez Percés Indians

By CHARLES STUART MOODY, M. D., Sandpoint, Idaho

EDITORIAL NOTE.—This is the eighth installment in Dr. Moody's series. In this number he discusses the Indian's religious beliefs. Like the preceding articles of the series, it will be found intensely interesting.

Religious Beliefs

PERHAPS nowhere have writers dealing with Indians displayed such woful ignorance as when trying to tell of their religious beliefs. The religious like the political life must have been studied at first hand and no mere cursory investigation will serve to render it intelligible. If the Christian faith is complex and incomprehensible, the savage faith, to the untrained thinker, is infinitely more so. The savage red man, like the savage white, has simply endeavored to account for natural phenomena by attributing to them supernatural powers. By so doing, he invested all things, animate and inanimate, with a spirituality.

In entering upon a discussion of the Nez Percés idea of religious matters, I shall have to crave permission to be as rambling and disconnected as I wish. The different tenets will not appeal to me in anything like their natural sequence, and I shall set them down as they do come to my mind. Out of the jumble you may be able to gather what the aboriginal Nez Percé actually believed before his faith was tinctured by association with the white invader. While I disclaim any quarrel with any religious organization, nor caring to enter into a controversy upon the subject, in my humble opinion, had the Nez Percés, and for that matter every other savage of whatever race, been left to the enjoyment of his old faith, it would have been vastly better for him.

The old-time Nez Percé had no conception of the beginning of the world. To him it always was; it existed, however, a long time before becoming peopled with human beings. During this period the earth was inhabited by animals and birds who possessed the power of speech and the ability to reason and plan, and a great many of the myths of the Nez Percés are built about these reasoning animals and birds. Of these, the coyote plays by far the larger part; he is the star actor in nearly all their dramas. In several myths he figures as the creator, in others, as the dupe and cat's-paw. Bear, elk, deer, mountain-sheep, and magpie are the heroes of several, while the beaver is the greatest benefactor, for it was he who brought the fire. In one or two, the raven takes an active part, in another, heat and cold are made to act.

As will be shown later, the Nez Percé looked upon the earth as his mother and the sun as his father. This will be brought out more fully in the legend of creation. This idea of earth-mother was why the Nez Percé did not wish to till the soil. His earth-mother created him, she would also feed him without any effort upon his part.

The whole universe was peopled with spirits—malignant or benign, as they were supposed to effect the people for good or ill. Disease, under certain conditions, was a malignant spirit that had obtained entrance into the body of the sufferer and was working him ill. A particularly enterprising and busy evil spirit was that producing rheumatism, and several of us can sympathize with the Indian in his judgment on that score too.

A great deal has been written by alleged Indian students about the Great Spirit, and religious and other writers have translated this expression as "God." So far as my knowledge extends, the Nez Percé had no conception of an abode of eternal bliss other than the ultimate possession of the earth. His faith did not create a heaven for the soul to inhabit immediately after death. There was no "Great Spirit" sitting, in supreme majesty, upon some heavenly throne, dispensing justice and handing out happiness to the souls of people who stood before him in a long line awaiting his decree. The idea of a heaven for the soul never found lodgment in the Indian brain until after the advent of the missionary. In fact, it has no very firm hold on his imagination even today.

The Indians believed that some day there would come a messiah to the earth, who would call from their graves all the dead, bring back to the hills the game, the fish to the streams, all the children of men should be at peace and a reign of endless happiness begin. Just where the messiah was to appear from they did not know, nor must the reader confound him with our idea of Christ, the savior of mankind. The primal fall and atonement had no place in the Indina religion.

About Smohalla, the Yakima Prophet

It has been asserted that the Nez Percés drew their religion from the Yakima prophet Smohalla. That Smohalla did influence the religion of the Nez Percés to [illegible] extent, no one conversant with the [illegible] will attempt to deny, but that he cr[illegible] no person who has investigated the [illegible]r will assert for an instant. The essentials of the Nez Percés religion existed hundreds of years before Smohalla was born. He simply crystallized the different beliefs into a rude sort of ritual. So great was the influence of this rude leader, not only upon the Nez Percés alone, but upon other tribes of the Northwest, that a brief sketch of his life may prove of interest.

Smohalla was the head man, or subchief, of a small division of the Yakima nation that lived on the banks of the Columbia River not far below Priest Rapids. He was more than a chief, in that he was a "tu-at" as well. It is impossible to arrive at anything like the date of his birth. It occurred probably somewhere near 1820. When I was quite a small boy I knew him very well, and even then he was very old. In person, Smohalla was short, thick-set, almost if not quite a hunchback; his head was nearly destitute of hair.

In personal appearance, he was unprepossessing, even repulsive. It was only after one came to know him that you realized the reason for his wonderful influence over his people, or, indeed, over any Indian people who came under his teaching. He was a natural orator and could hold the Indians spell-bound by his eloquence. There was nothing vehement about his oratory, rather it was soft and persuasive. Even in his controversies with the whites over the white occupancy of his land, he never lost control of his temper, though there were times when his expressive black eyes would flash with indignation. One writer has said that his appearance suggested "cunning." In that the chronicler was in error. Never have I seen a countenance more frank and open in its expression. He never adopted the dress of the whites, but clung to his tribal habiliments. These were always kept scrupulously clean as was also his person.

It has been said that Smohalla attended the catholic missions established on the Coast, but no claim has ever been made that he united with the church. If he did attend the church and its services, one can readily understand where he got the foundation for his ritualistic work.

Had it not been for a single happening about 1860, Smohalla might have lived and died an obscure Indian "tuat." Through

some unknown Indian controversy, Smohalla incurred the enmity of another Yakima chief, Moses, who lived further up the river. Moses threatened the prophet's life, and to protect himself Smohalla "made medicine" against his enemy. Moses was very much afraid of this "medicine." One day he armed himself and sought out the "medicine-man" where he was engaged in his incantations on the river shore, picked a quarrel with him, and when the fight was over, Smohalla was left for dead. Moses rode away, secure in the belief that no more "medicine" would be conjured up to his destruction. But Smohalla was not dead. He recovered sufficiently to crawl into a canoe, cast it adrift and float on the current of the Columbia far out of the country. He was finally rescued by some white men and after many weeks recovered from his hurts. Fearing the vengeance of Moses, if he should return to his own country, Smohalla resolved to travel, and his journeyings constitute one of the most remarkable pilgrimages ever undertaken by an uncivilized person. They occupied years of time and extended over many thousands of miles of country, during which time he visited many tribes.

All this time Smohalla carefully concealed his identity, and learned from the people he visited many things about themselves, their religion, and their mode of life. Upon his return to his own country he announced that he had died and returned only by command of the messiah, to teach his people the way of life. The credulous people believed him, and Moses, his former enemy, was so frightened that he never attempted his life, nor did Smohalla ever make "medicine" against Moses again.

Sets Himself Up as a Prophet and Regenerated Their Religion

Owing to the influence of the whites, the Indians had departed from their primitive simplicity to a great extent, and it was Smohalla's mission to lead them back into the old paths. That Smohalla was a genius there can be no question, that he was insane is equally certain. He was subject to cataleptic trances and while in them was insensible to pain. When his people seemed inclined to return to the ways of the white man he would go into a trance and threaten to free his spirit from the body and return to the messiah. Upon his return from the trance state he would relate his visions and promulgate them for the guidance of his people. That these admonitions were always for the good of the Indians is an argument in his favor. That Smohalla actually believed in his inspiration and his mission would have been evident to any person who saw and heard him.

His ministrations, confined at first to the small tribe of which he was a member, soon spread to other tribes and his services were in demand everywhere. He visited all the tribes of the Northwest and taught them his religion and the manner of its observance. That this religion was simply a crystallization of the already existant beliefs I have already stated. Without education, he devised an alphabet of cabalistic characters, and set down in a book he always carried a record of events and prognostications. This book is still extant, but no man has ever been able to decipher its characters. He also devised a flag with certain heraldic emblazonments that was carried for him by a standard-bearer and erected in front of the tepee wherein he held his services.

The service itself, of which I witnessed several, was a very interesting performance. The long double tepee was swept clean, a fire lighted in the middle of it, a clean strip of canvas laid down the center. On one side stood a row of twelve women dressed in red, on the opposite side, a similar number dressed in white. These women had their arms crossed with fingers extended and touching the shoulders. A band of drummers occupied one end of the tepee and kept time by striking their instruments. The women would raise up upon the balls of their feet, poise an instant, then drop back, keeping time to the music. Down the floor through the center knelt men and boys in rows of seven, each seven being dressed in something of uniformity. Smohalla himself knelt at the head of the tepee, his left hand over his heart. He was dressed in a white gown with a red stripe running

down the back. The services themselves consisted only in the ordinary Indian chants, such as the lament for the dead, the prayer for the return of spring, the petition for a good harvest or for a great "run" of salmon. After these were sung a dish of cooked salmon and several ollas of water were brought in and Smohalla commanded each to take salmon, then take water. The trance part of the program might be postponed unless the priests were in a particularly receptive mood, when he would enter the trance state, during which time his devotees remained perfectly quiet and silent. Upon emerging, he would arise and talk to his congregation at some length. After the ceremonies were concluded the Indians joined in a characteristic Indian dance, which usually continued far into the night.

Some of Smohalla's Precepts

It has been written that Smohalla taught hatred of the whites. These statements were made by the ignorant or the designing. What Smohalla actually said was that the ways of the white man were not the ways of the red, and advised his followers not to attempt to live as the whites lived. Holding to the ancient earth-mother belief, he did not want his children to desecrate their mother by tilling the soil. He found that the white people were inclined to make farmers of the Indians, consequently he taught them to shun the ways of the whites. He noticed also that the whites were dishonest, treacherous and unfair in their dealings with the Indians and with each other. These attributes he did not wish instilled in his people, so he called their attention to them. He weighed carefully many statements of the missionaries and the priests and found that they did not square with the facts; he called attention to these discrepancies and advised his people always to speak the truth.

The fact is, the closer one studies the creed of this remarkable man, the more he becomes convinced that that creed is the best for the Indian. That is, of course, if he looks at the matter without his mental vision being distorted by preconceived notions about the salvation of the human race. In his creed Smohalla lays down rules that might have been followed with great profit by the very men who were sent to lead the Indian into the way of salvation and grace.

The substance of a few of Smohalla's remarks have been preserved. It will be understood that it is impossible to give them verbatim, but a free rendering will serve to convey to the reader an idea of what the Indians believed with regard to some things.

Some of Their Tenets

When the Northern Pacific railroad was building across the western country the grade was laid without regard to the property-rights of the Indians. Smohalla's tribe protested against this invasion of their homes and, in a conference that was held over the matter, one of the commissioners suggested to the prophet that it would be better for him and his people to follow the ways of the whites, plow and seed the land, dig for stone and sell it to the builders, cut the rich meadow grass and sell the hay to the railroad contractors. This, according to the Indian lights, was impossible. In reply, Smohalla said: "You ask me to plow the ground. Shall I take a knife and tear my mother's bosom? You ask me to dig for stone. Shall I dig under her skin for her bones? You ask me to cut grass and make hay and sell it and be rich like white men. Shall I dare to cut off my mother's hair?"

That, in a few words, illustrated the attitude of the Indians on the subject of agriculture. It would be sacrilege for them to disturb the body of their true parent, the earth.

Upon another occasion he was taken to task for his habit of dreaming. The white man to whom he was talking suggested to him that the Indians should not commune with themselves so much. Smohalla replied:

"My young men shall never work. Men who work can not dream, and wisdom comes to us in dreams." That was another tenet in his religion.

Once, in a talk with Senator MacMurray, he enunciated the doctrine of the resurrec-

tion. After objecting to the division of the Indian lands, where each should take a home for himself, he spoke as follows:

"It is a bad law, and my people can not obey it. I want my people to stay with me here. All the dead men will come to life again. Their spirits will come to their bodies again. We must wait here in the homes of our fathers and be ready to meet them in the bosom of our mother."

That was the reason why the Nez Percés, in 1877, objected to the partition of the lands. If they should part from their lands, they would have no place to meet the spirits of their ancestors when the time came for the resurrection. While it will be understood that Smohalla was a Yakima and was speaking for the Yakima people, his words apply with equal force to the Nez Percés.

Smohalla was accused of hating the whites. He denied this very forcibly, then told how the Indians treated the first whites and how the whites afterward repaid their kindness. He continued, "We are now few and weak and can offer no resistance, and their preachers have persuaded them to let a few of us live, so as to claim credit with the Great Spirit for being generous and humane. But they begrudge us what little grass our ponies eat."

There you have the whole miserable story from the Indian's standpoint. He gave all that he had to give when the white men came poor and footsore and hungry, then when they grew powerful they took away from the Indian everything that he had, even to begrudging the few wisps of grass his ponies ate. Yet, Smohalla looked earnestly at his auditor and said, "If they tell you Smohalla hates all whites, do not believe it." He was willing, after all, to forgive his oppressors, for that was what his religion taught him. The attitude of Smohalla was very much the same as that of the Nez Percés on the same subject.

We must now leave Smohalla. Perhaps we have devoted more attention to him than circumstances would seem to warrant. The reason is that his ideas were the same as those of the people under consideration and it were easier to deduce conclusions from his remarks than from attempted explanations by the Nez Percés.

Smohalla, before his pilgrimage, was a "tu-at," "medicine-man," "dreamer," or whatever else the whites chose to call him in their ignorance. As a matter of fact, he was a "tu-at," nothing more, all the rest are fabrications of the interested missionaries or government officials.

The Tu-ats as Religious Personages, and How They Were Made

And this seems the proper place to enter a little more fully into the consideration of this important class of Indian officials. The "tu-ats" have already been slightly considered in their political relation to the Indian form of government, but it was in their religious capacity that they were most influential.

It may be as well here to tell how the "tu-ats" were created. It was not every Indian who could become a "tu-at." The candidate for these honors must have displayed from his earliest youth especial adaptability for the business. A hard-headed practical Indian could never become a "tu-at," he could never acquire the proper mental state necessary to the fulfilment of the office. Let me sketch the making of a "tu-at."

A youth was selected who gave promise of being a dreamer, such a one as, in civilized life, would likely develop into a poet. This youth was placed under the tutelage of an old "tu-at," who then began to instruct him in the mysteries of the cult. The first thing to learn was the legendary and traditional lore of the people. He was told and retold all the myths, legends and historical incidents of the people from as far back as their tribal history ran. Next he was instructed in the mysteries of the faith, the Nez Percés "five points," as we might say.

The next thing was the vigil of purification. In this he was expected to fast, remain without sleep, and pray. When finally overcome by fatigue and hunger he fell asleep, his vision was related, and the old "tu-ats" interpreted it. If, as usually was the case, they could read some meaning into it, no matter how far-fetched that

meaning might appear to civilized ears, the youth was constituted an acolyte. That was not the word, in fact there is no word in the Indian tongue that expresses it. He was made a sort of sub-priest and invested with certain minor duties in connection with the work. Like the medical undergraduate, he was not intrusted with difficult matters, but allowed to do little things that did not require great powers of divination. Finally, when the old "tu-at" died the young man was invested with his robes of office and fell heir to the paraphernalia of incantation.

His duties were manifold. His to interpret dreams—his own and those of others; his own, to ascertain the will of the messiah; of the others, because of their influence upon the person dreaming them. His to heal the sick when the person ill was possessed of the spirit of evil. His to counsel and advise the leading men and chiefs of the people. Thus his importance was of the greatest. In the next chapter I intend to take up the duties of the "tu-at" in connection with sickness more fully.

In concluding this paper, let me briefly epitomize the religious beliefs of the Nez Percés. The Indian believed in a messiah; he believed that everything had a spirituality; he believed that these spiritual entities influenced mankind for good or ill; he believed that all the Indians were to inherit the earth; he had not knowledge of a future punishment or of a future heaven; his conception of heaven was as an earth where hunger and thirst should never come, where cold should forever be banished by warmth. In short, his idea of future happiness centered around the physical pleasures entirely, what he would most enjoy here was what he was to enjoy then.

Immunity to Infectious Diseases

How It May Be Produced by Sanitation of the Inner Body-Surfaces

By N. B. SHADE, M. D., Washington, D. C.

EDITORIAL NOTE.—Dr. Shade believes that many infectious diseases, including even tuberculosis and appendicitis, may be prevented or cured by suitable immunizing treatment, addressed mainly toward the alimentary canal. Whether you agree with Dr. Shade or not, he will set you thinking.

IF the necessity of the sanitation of the inner surface of the body were inculcated into the minds of the people, especially of the rising generation, it would greatly curtail the work of the family physician, as there would be fewer cases of typhoid fever, intermittent fever, continued fever, diarrhea, dysentery, cholera, cholera morbus, colic, indigestion, appendicitis, and a host of nervous diseases that are caused directly or indirectly by an unsanitary alimentary canal.

I have written several articles on this subject for medical journals, but the laity should have these facts laid before them in black and white, regardless of the effect it would have on our own incomes. I dare say there are but few physicians that practise medicine because they like it, but only do so to make a living; so, I would judge, about half of them will protest when I suggest that competent doctors should deliver lectures to the school-children of proper age, aided by diagrams and blackboard illustrations, showing the abdominal viscera, the stomach, the different sections of the serpentine organs, cecal valve, appendix, and so on, explaining the nature of digestion and of constipation, which latter is the principal cause of appendicitis.

Will germs find entertainment in a sanitary alimentary canal? Will seed sown on the concrete streets of the city where there is no soil germinate and grow? Then, is it not plain that it is impossible to develop germ-life in a sanitary body?

As a rule we digest all germs with impunity. And so the Abbott maxim, "clean up and clean out", should be practised and put in the minds of the young when it will

be lasting. That old-folks' saying in this country—years ago when families lived far apart and there were no railroads and doctors were scarce—"Trust in God and keep your bowels open" looks like "apples of gold in pictures of silver" to me. A reliable saline laxative, epsom salt or any magnesia salt taken, with plenty of water, on an empty stomach and generally best upon rising, will do the work with an occasional dose of calomel—5 grains with 3 grains of sodium bicarbonate. I take 10 grains of calomel sometimes when I find 5 grains fail to give relief. Many a time during the last forty years have I put 5 grains of calomel on a child's tongue, washed down with water or breast milk, with the happiest results.

We are too much afraid of calomel in large doses. Give it often. It will give you a reputation in your field of practice. No one need know he is taking calomel. Call it a "compound soda capsule," or when you put it on the tongue with your pocket-spatula merely say, "a tasteless powder," and wash it down with water. Always see that a good dose of saline laxative is given next morning. Small doses of calomel produce a deathly sick stomach more frequently than large doses. I never give small doses except when I want the physiologic effect of mercury.

I could mention numerous cases where I believe I was instrumental in saving the life of my patient with heroic doses of calomel repeated frequently, and in no case can I recall when anyone was harmed in any way by large doses. My wife, who is stout, at the age of about fifty years was taken with an attack of what the Washington doctors called appendicitis. I thought it was only impaction caused by a period of unsanitary inner surface or constipation. An operation was suggested. After she had taken three 5-grain calomel capsules, without relief, she was given one every other night and saline laxative every morning. The bowels moved very freely, being watery and frequent, but the pain in the right iliac fossa still persisted as also the tympanites. I said, "No, do not operate yet," and gave several more 5-grain calomel capsules until she had taken five or six doses, when she began to improve and in a few days was up and about as usual. She has enjoyed elegant health ever since, with no symptoms of appendicitis.

Do you know, I am of the opinion that there are but few cases of appendicitis (so diagnosed) that require the knife. Maybe I am wrong, but I have not had a case of appendicitis, to my knowledge, during forty years' practice. I could cite many cases that I feared might require operation but which yielded finally to treatment.

Allow me to mention a young man from New York who said he had two attacks before he came to Washington to take a government position. His physicians insisted on operating, but he declined, saying that if he ever got another attack he should have his appendix removed. Three weeks after his arrival in Washington he had what he called the severest attack and he requested that his old physician (myself) be called; which decision saved him time, money, and possibly his life, for he was determined to have the operation performed at once, as he told me on my arrival. I found great tympanites and all the tenderness and other symptoms of appendicitis. I promised to get another surgeon and operate on the following morning.

With a pocket-spatula I placed some—possibly 10 or 15 grains—calomel on his tongue and washed it down with water, ordered turpentine stupes, and gave, internally, veratrine, aconitine, and digitalin, one granule each every half hour until sedation, and on the following morning, saline laxative. When his bowels poured forth their contents, he straightened out his limbs, which before had been drawn up because of the tender condition of his abdomen. The following day he began to sit up in bed, and after that made a good recovery. I advised him to keep his bowels in a sanitary condition, in the future. To my knowledge, he has never had another attack.

I could mention a number of cases and call names of men who will witness that physicians wanted to operate, but who now are well and enjoy good health, although they did not submit. Some of them have

become stout and declare they have a new lease of life.

Sanitation of the inner surface of the body will, I believe, assure immunity to tuberculosis as well as to all infectious diseases, while also modifying the malignancy of all diseases of this character.

I must confess that this subject of sanitation and calomel are two of my favorite hobbies. Year by year I am becoming more persuaded that the laity should be taught how to keep clean and sanitary, not alone as to their home and environment, but particularly as regards their serpentine organs.

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[While we can heartily endorse much that Dr. Shade says, we cannot leave the subject without a word of warning. There are many cases of appendicitis which are distinctly surgical, and where an immediate operation is essential to save life. We have in mind one case that came recently under our observation—that of a beautiful girl of sixteen, an only daughter. She was taken one night with severe abdominal pain. A physician was called who pronounced the case one of "acute indigestion." No relief followed his medication, and another physician was called who diagnosed appendicitis—and temporized. Finally, following a severe rigor and the local signs of peritonitis, she was sent to a hospital and operated upon. The appendix was gangrenous, had ruptured, and the entire peritoneal cavity was infected. The girl died.

It is always best to bear in mind that there is no safety in taking chances with a gangrenous or severely inflamed appendix in the abdomen.—ED.]

Is Malaria Cured by Quinine?

By M. G. PRICE, M. D., Mosheim, Tennessee

MALARIA is a disease which is not very prevalent in this section of our country. Now and then we hear of our old-fashioned "a chill, a fever, and a sweat," but the attacks are not, generally, typical, occurring more often as a fever, a sweat, and a period when these symptoms are not in evidence. Still other forms are encountered, but these are so light that a death results very rarely.

A long time ago, in pioneer days, when this country was a "waste and howling wilderness," malaria did quite a business, but not now. And why? Because the country has been cleared and cultivated, and streams have been rid of fallen trees and other debris, thus leaving no hiding places for the germ producing the disease, while, moreover—locally speaking—that noxious pest, the mosquito, is no longer so very prevalent. Occasionally, if there is a rain-barrel standing handy, a few of the stinging malefactors will be hatched out and come to you in the stilly night to scratch an acquaintance and casually to take a sip from your veins in exchange for a full-fledged plasmodium, which latter will be the progenitor of a multitude of lusty grandchildren before the rise of sun.

The disease is easily handled. It usually takes longer—that is, here—to diagnose the trouble than it does to cure it. What I mean is, we have no bacteriologist at hand and so our diagnosis must be made from the clinical history of the case, which takes from three days to a week to become a certainty.

Quinine Does Not Cure

Diagnosis arrived at, the treatment is easy, and certain. Quinine, yes—but quinine by itself never cured a case, and under certain circumstances will bring about the very condition you are trying to combat; hence, maybe, you are or might be using it homeopathically. It may seem a strange doctrine that quinine will not cure. It has been thought the only "specific" we possess, but every doctor who has used it knows that in some multiple of seven days—7, 14, 21, 28—after the administration of the drug, if no more is given, the malarial attacks will return. Cure to stay cured is specific doctrine, in my judgment. Quinine does not do it; the malady comes right back.

Long years ago I myself had the old "shaking" kind. I asked my physician what was the matter with me. He said he didn't know, and I reckon he didn't; but I now know that I had a chill, a fever, and a sweat at some multiple of seven days for six long months—but I took quinine, until now, after the lapse of thirty-five years, the "crickets" are singing merrily in my ears, nor has this eternal din ceased in all this long stretch of time. Quinine doesn't cure, but is of *value*.

The Role of Quinine and a Sure Ague Cure

Let's talk about the drug just a little bit and see for what it is fit. There are certain specific conditions in which it will act well; in other words, when the system is in the right condition for the use of the remedy we get something from it. We must have a soft skin; mucous membrane of the mouth moist; tongue moist and inclined to be clean; pulse full, soft; temperature normal or inclined to be so. Then quinine will overcome malaria periodically, but as to taking a "death-grip" on the disease, it won't do it. I have been badly disappointed in the use of quinine, and that not so long ago. The period and amount taken means much in doing even the little that this drug will do.

The remedy should be given when the fever is down and the system in the condition named above; but I generally first purge my patient thoroughly with calomel and podophyllin. I give it the night preceding the intermission, then give enough quinine to cinchonize the patient completely and to have him so when the time comes for the recrudescence. I do not know how much it will take; one will have to find out by experimentation. Every patient is a law unto himself in this particular; but when you have him under control, then the fight is to prevent a return of the attack. Quinine, I say, will not accomplish this. Then what?

Put 2 ounces of nitromuriatic acid and 150 grains of ordinary, old-fashioned sulphate of iron (contused) into a bottle and set aside, uncorked, for twenty-four hours to digest. Of this chemical solution give to 10 to 12 drops in 4 ounces of water every four hours. This is a formula bequeathed by our sainted Brodnax, and it is a "sure cure". There are no recurrences.

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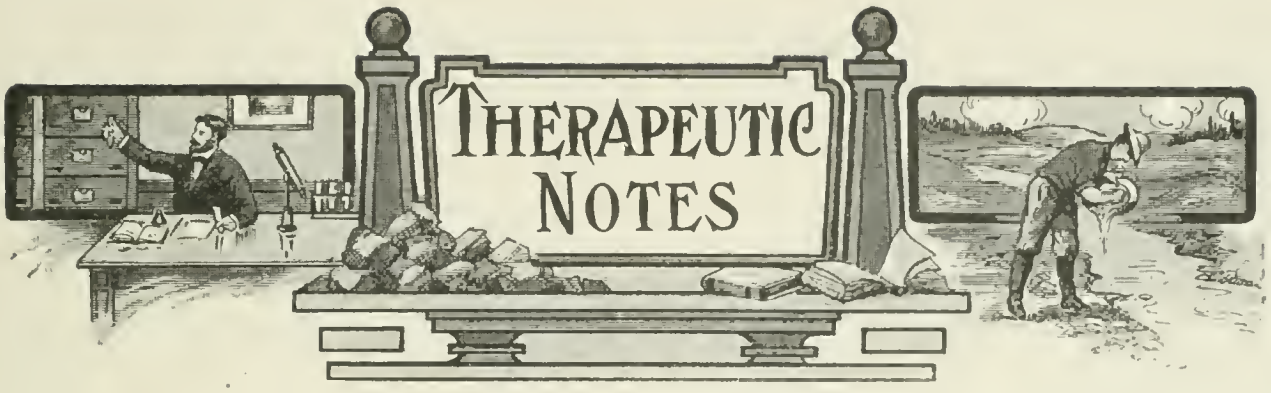
[Quinine kills the plasmodia but does not affect the eggs. These hatch, and every new brood must be met by a new saturation of the blood with quinine. Arsenic armor-plates the red blood corpuscles against plasmodial attacks and kills animal blood-parasites. Quinine arsenate, one grain, equals quinine sulphate one Gram; and this dose given daily renders the blood unwholesome to the plasmodia. These set tight in their splenic fortress; but give daily, one to three grains of berberine to contract its parenchyma and the germs are squeezed out into the blood where the 'cides get to them. That iron-acid mixture is great: so is the triple arsenates with nuclein combination pushed to the limit, with Price's cholagogs and *quantum sufficit* of sulphocarbolates to follow.—Ed.].

"IT was once remarked," said Dr. E. P. Lyon, "that, if you give Jacques Loeb a collar-box and a piece of string, he will make a discovery. On the other hand, I know a man who, three years ago, could not do any work because his Edinger apparatus had not come; two years ago he was waiting for material from Java: last year he found he needed a dark-stage illuminator and a micropolariscope. Now he is waiting for a new laboratory building. These extremes illustrate the man and equipment proposition better than many paragraphs of theory." And the same is true of the doctor. The really resourceful man, 'way out in the backwoods, will do more for his patients with his 9-vial case than many a city "professor" with a well-equipped hospital and a corps of nurses to help him.



STIFF NECK

Dr. Whiteside of Plover, Wisconsin, tells us that he has splendid results in the treatment of stiff neck by the use of alternate doses of macrotin and bryonin, a granule of each every hour, or as often as indicated.

FOLLICULAR TONSILLITIS

If you have a case of follicular tonsillitis, with white spots on the tonsils—the cases that are so often mistaken for diphtheria—try using as a gargle a saturated solution of sodium sulphocarbolate. It works like a charm. so one of our friends tells us.

PELLAGRA IN ANDERSONVILLE PRISON

Dr. J. W. Kerr, of Corsicana, Texas, writes us that he was in charge of the prison hospital at Andersonville, Georgia, during the late war between the states. He is now convinced that a large percentage of the deaths which occurred among the prisoners was due to pellagra.

THE ADVANTAGES OF SULPHUR AS AN INTESTINAL ANTISEPTIC

Wild (noted in *Charlotte Medical Journal*, 1911, July) says: (1) Sulphur is almost tasteless and easily administered. (2) It is insoluble in the stomach, and the greater part of it passes along the whole length of the alimentary canal. (3) It does not interfere with the action of any of the digestive secretions. (4) It forms active antiseptic substances in the intestines when their contents become neutral or alkaline. Some of these substances are gaseous and penetrate to all parts of the intestine. (5) It is sufficiently nonpoisonous to be given in effective doses. (6) It has valuable laxative properties, which promote an early evacuation of the intestinal contents. (7) It is cheap.

HEXAMETHYLENAMINE IN EAR SUPPURATION

T. K. Hamilton (*Australasia Medical Gazette*, May, 1911), in a lengthy article on rhinological advances, strongly recommends hexamethylenamine (formamine or urotropine) for suppurative sinusitis. He used the drug with good results after a radical mastoid operation in a case of long-standing suppurative otitis media, the chemical appearing in the cerebrospinal fluid in from one-half to one hour after administration. Its secretion as formaldehyde may prove it a valuable internal antiseptic in suppuration of any kind.—*The Prescriber*, 1911, Sept., p. 234.

IODINE DISINFECTION OF THE OPERATIVE FIELD

Frolow reports in a Russian journal very favorably on disinfection of the operative field by painting with iodine, after the method of Grossich. This has been especially advocated in America by Major Woodbury, of the United States Army Medical Corps.

TREATMENT OF ELECTRICAL SHOCKS

Sir Thomas Oliver, in *The Lancet*, discusses with some detail the pathology of the injuries caused by electricity. He tells us there are two main theories as to the cause of death from electric shocks, namely, the first, that inhibition of the medulla

oblongata leads to an arrest of respiration followed by cessation of the beating of the heart; the second, death directly from the heart without the intermediatory of respiration.

Oliver's experiments led the author to believe that death is of cardiac origin. He says that after a person has been in contact with a live wire after the circuit is broken, even if there should be no signs of life, the body must be placed upon its back and artificial respiration resorted to at once, continuing this for a considerable length of time. He has experimentally succeeded in resuscitating animals whose heart and respiration had ceased for several minutes. At one English power-station, it is said, a a man who had received 2000 volts and who had been pronounced dead by the attending physician was resuscitated by his fellow-workmen, who resorted to artificial respiration and kept at it for over an hour.

HYDROGEN DIOXIDE IN GASTRIC HYPERACIDITY

G. W. Hall (*Boston Medical and Surgical Journal*, June 15, 1911) finds that a teaspoonful of hydrogen dioxide, given in a glass of water after each meal, diminishes the amount of hydrochloric acid in the stomach and gives great or total relief from the distressing symptoms of hyperchlorhydria. Constipation, should it result, may be relieved by giving a teaspoonful of Carlsbad salt in hot water before breakfast.

OILED OR UNOILED FLOORS

The school authorities in Birmingham, England, have been conducting some experiments for the purpose of determining the best way to overcome the dust nuisance in school rooms. Here are the results:

The number of colonies of bacteria developed from air of rooms with unoiled floors before agitation of the floors was 31, as compared with 20 for rooms with oiled floors, an excess for unoiled floors of 55 percent.

The number of colonies of bacteria developed from air of rooms with unoiled floors after agitation of the floors was 100, as compared with 28 for rooms with oiled floors, an excess for unoiled floors of 257 percent, or nearly four times greater than for oiled floors.

Oiled floors after agitation showed an average of 40 percent increase in the bacterial colonies, while unoiled floors after agitation showed an increase of 222.6 percent.

TREATMENT OF SERUM SICKNESS IN DIPHTHERIA

John R. Keith (*Brit. Med. Jour.*, July 15, 1911) has found the pain of serum sickness to subside under treatment with hot poultices and fomentations, while the urticaria yielded to calcium lactate given in 5-grain (0.3 Gm.) doses. In two cases all symptoms rapidly disappeared under the influence of salicylic acid; in one case sodium salicylate was given in 5-grain doses every three hours, and in the other acetylsalicylic acid was similarly administered.—*The Prescriber*, 1911, Sept., p. 230.

HYDROGEN DIOXIDE AGAINST HYPERACIDITY

While in the past, in the treatment of hyperacidity, the aim principally was to diminish the excessive acidity of the gastric juice, or then to impede the secretion of an abnormal amount of the same, the investigations of Kauffmann and Aldor have directed our endeavors into a new channel. They found a connection between the pain resulting from hyperacidity and the diminished secretion of mucus, and were thus led to employ hydrogen dioxide, which increases secretion of mucus.

Roubitschek has investigated the value of this treatment in 35 cases. The patients received 300 Cc. of a 1-2 percent solution of hydrogen dioxide while fasting, and if the effect of this was insufficient, a 3-4 to 1-percent strength was employed. The author made use of Merck's perhydrol. The treatment was persisted in, as a rule, for two weeks and was followed by cure in

80 percent of the cases treated, the patients remaining free from trouble for a period of the three months during which they remained under observation. The other 20 percent were those of cases complicated with hypersecretion and disturbances in motility and which, therefore, were not adapted for this mode of treatment.

Roubitschek found that solid preparations of hydrogen dioxide had a less certain effect and acted more slowly.—*Deutsch-Amerikanische Apotheker-Zeitung*, Sept., 1911, p. 89.

POISONS DO NOT AFFECT DIFFERENT ANIMALS ALIKE

A short time ago we were told by Dr. Kaupp, pathologist of the Colorado State Experiment Station, that chickens have a peculiar tolerance for strychnine. It is not uncommon to give to an ordinary fowl 1 grain of this substance at a single dose, while 1-4 grain is the average remedial dose. On the other hand, strychnine acts almost as quickly as hydrocyanic acid on the cat, and, as everybody knows, is one of the most rapid and efficient poisons for the dog. Morphine, on the contrary, produces almost no effect on the dog, and our associate, Dr. Palmer, has given as high as 25 grains to one of average weight without causing death. Horses are quite susceptible to morphine, but, instead of sedating them, it acts as an excitant. It is pretty hard to deduce from these results the action of the drugs upon the human being.

ICE WATER AND FANNING IN PNEUMONIA

Dr. R. L. Hammond, in the September *Medical Brief*, advocates the application of ice water to the entire head and back of the neck of persons suffering from pneumonia. The moistened parts are to be vigorously and constantly fanned. The hands and wrists are also moistened and left outside of the covers to cool. By these measures, Dr. Hammond maintains, he is able to secure much better results than he can by the socalled "cold-air" treatment. Furthermore, the fanning has a more decided effect on the lowering of the temperature than the ice-cap.

Marked relief follows this measure, shown not only by reduction of temperature but by the pulse becoming less frequent, stronger and fuller. If the case is a malignant one or extremely severe, the Doctor finds it necessary to apply a well-filled ice-cap to the precordium and lower portion of the thorax. If the temperature fails to fall under the ice applications, he rubs the surface of the chest upon which the ice rested with turpentine and applies a strong cantharidal plaster, covering it and the entire chest with a well-ground linseed-meal poultice, as hot as can be borne. This is allowed to remain ten or twelve hours and will help to bring about the crisis.

MORE ABOUT WATER DRINKING WITH MEALS

T. B. Hawk, in *The Archives of Internal Medicine*, September 15, 1911, continues his studies on water drinking, this time with reference to the activity of the pancreatic function under the influence of copious and moderate water drinking with meals. As a result of laboratory experiments he concludes that the ingestion of water at meal time, ranging in volume from one-half to one and one-third liters, stimulates the pancreatic function in two ways:

First, by direct stimulation of the nervous mechanism of the pancreas, while the water is still in the stomach.

Second, by increased stimulation occurring upon the entrance of the increased volume of acid chyme into the duodenum.

Dr. Hawk says that the drinking of water with meals should bring about a more rapid and complete digestion and absorption of the fat and carbohydrate constituents of the diet, and these observations have been verified by laboratory experimentation.

SCIATICA AND ITS TREATMENT

Dr. William Henry of Harmon, Illinois, says that for several years he has been treating sciatica successfully in the following manner:

First he gives cathartic doses of podophyllin, following these with from 10 to 15 grains of ammonium chloride every two hours until the pain begins to abate. The latter is given in an aqueous solution, only chemically pure ammonium chloride being used. Under this treatment his patients become well in a very short time. Dr. Henry says he has treated cases of this character which have been in the care of other physicians for a long time with no improvement, and in a few days under the ammonium salts the patient would be free from pain. After the pain disappears there may be a sensation of numbness in the affected part for a few days.

Dr. Henry expresses the hope that those who read CLINICAL MEDICINE will try this method of treatment and report results.

THE TREATMENT OF TRIGEMINAL NEURALGIA

Dr. Alfred Fuchs, assistant to the K.-K. Clinic for Psychiatry and Nervous Diseases in Vienna, in an article reprinted from "Einfuehrungen in das Studium der Nerven-Krankheiten fuer Studierende und Aerzte," says:

"In aconitine we have a remedy which has a specific effect in trigeminal neuralgia. To obtain success, two requirements are important. First, the employment of an effective and well-prepared preparation, and, secondly, the following of a system by which the aconitine effect is supplemented by a purgative treatment. It is not easy to obtain an effective preparation. The official tincture of aconite root (German Pharmacopeia) is unreliable. The difference in the effect of the various aconitine preparations evidently depends upon the presence, in variable quantities, of a strongly active aconitine and the less active constituents contained therein. For these reasons the dosimetric pills, made with a solid mass, are more effective. The maximum dose is variable. Under medical administration the quantity given can be properly controlled, since the intoxication symptoms, such as parasthesia of the tongue lips and hands (ulnar region), are indications for the reduction of the dose. A cumulative effect of the drug is not to be feared, because of the catharsis which must be combined with the treatment. The effectiveness of proper active catharsis for the relief of pain in neuralgias is widely known, but is, unfortunately, little considered in practice. Gussenbauer was the first who emphatically called attention to the importance of active catharsis in the treatment of trigeminal neuralgia.

"Gussenbauer's experiences with peripheral resection of the trigeminus branches were so unsatisfactory that he discontinued this practice almost entirely and enriched the therapy of trigeminal neuralgia with an evidently unessential, but really useful detail, so that this clinician's injunction to attend to the bowels has come to be recognized as the most successful method in the treatment of neuralgias."

In other words, "clean out, clean up, and keep clean." And give aconitine. This is supportive of the position which we have maintained for many years: that neuralgia is often, perhaps most often, an effect of intestinal toxemia. Remove this factor and many cases are readily cured.

TREATMENT OF INSOMNIA IN CONSUMPTION

A Jacobi, in *Medical Review of Reviews* for June, 1911, calls attention to the fact that sleepless nights are far more than inconveniences; they are dangers sapping the strength and undermining the resisting power of the patient. The fear lest he become a victim of morphinism does not weigh, in view of the fact that an advanced tuberculosis will finally terminate in one way only, and the relief and comfort awarded by morphine outweighs the oratory of a fanatic who gathers his indications and contraindications from a tract. His tuberculous patients take 1-4 grain (0.015), more or less, of morphine at bedtime. Those who are inclined to night sweats take a milligram (gr. 1-60) of atropine with it in a pill, to which, when there is constipation, a dose of aloin equal to that of the morphine dose may be added.

The Action of Morphine and of Opium on Domestic Animals*

II

Opium Action

LET us see now the action of morphine upon some centers in the medulla. Injections of morphine produce vomiting frequently in the dog and the cat, which is due to a direct excitation of the medullary center. This center is first excited, but becomes paralyzed by the further absorption of more morphine, and the vomiting stops. Therefore, in poisoning with this alkaloid, emetics are contra-indicated.

Small and medium doses of morphine produce more energetic contractions of the heart and a slowing of the pulse. Morphine is a heart calmant. Large doses produce an acceleration first and then a progressive abatement of the heart beat. In the dog, also, the pulse is slowed—by action on the center of the pneumogastric. Contrary to this, in the horse we have always observed a strong and accelerated pulse, even after the administration of small doses.

Lastly, morphine slows the respiration in both man and beast and does so even with small doses of the alkaloid, owing to a direct intoxication of the medullary center of respiration, which ceases to respond to the venosity of the blood. Animals which have received morphine have their arterial blood much darker than that of the control animals and yet their respiration is slowed. This slowing is demonstrated easily by making the animals respire by a spirometer before and after the injection of morphine. Here is a trachotomized rabbit. It inspires the air through a Mueller valve and expires the air into this gasometer. The gasometer shows the animal to expire normally 370 cubic centimeters per half minute. We will now inject into this animal 2 centigrams (1-3 grain) of morphine and have another reading of the gasometer after a quarter of an hour; we shall find the quantity of air expired considerably diminished. [The gasometer showed at that time 50 cubic centimeters of air expired per half minute.

Let us now study the action of morphine on the spinal cord.

A normal (medium) dose of morphine acts but slightly on the spinal cord. A little larger dose excites this organ and may even provoke a veritable tetanus, like strychnine.

This tetanizing action is in proportion to the animal's zoological scale. Fishes never sleep but manifest tetanic phenomena always. The frog enters the tetanic state very readily; the brain sleeps and the spinal cord is excited. The frogs which I show you here have not yet well-pronounced tetanic symptoms, the injections having been made somewhat tardily, yet some of them already show a notable increase of reflexes.

In the dog after he awakes we notice at times periods of excitement, with tetanic spells.

In the horse we find stiffness of the limbs and fibrillary contractions in various

*A lecture, with demonstrations, given to the Society of Veterinary Medicine of Brabant, July 3, 1910, by Prof. A. Van den Eeckhout

groups of muscles (patellar), contractions resulting from the excitation of certain medullary centers.

Lastly, in infants in whom the cerebral functions are but little developed we get from morphine at times tetanic convulsions, instead of sleep, wherefore it is so dangerous to administer morphine to an infant.

In resuming, we may say that morphine influences the brain according to the species of the animal; it tonifies the heart, calms the respiration, and excites the spinal nervous apparatus. Morphine also exercises a very important and specific action on the digestive tube; it diminishes the intestinal secretions and induces constipation in animals; it moderates or arrests intestinal peristalsis and puts the intestines to rest. This last action is very manifest in man.

With the stomach it is the contrary; far from being subject to the same influences from morphine, just mentioned, there is a tendency for its peristaltic movements to become rather exaggerated.

The action of morphine on the alimentary canal has not been explained as yet. Some presume a diminution of the excitability of the pneumogastric terminals, and of the sensory terminals in the walls of the intestines; others believe that the intestinal repose caused by morphine is the result of an inhibitory phenomenon exerted on certain medullary centers. Be this as it may, one thing is established, that morphine constipates.

Magnus and Zunz have of late, from their experiments on dogs, interpreted morphine constipation in an altogether different way. They have noticed that in dogs morphine produces a spasmodic contraction of the pyloric sphincter and that it retards considerably the passage of food from the stomach into the intestine. The authors claim, therefore, that this constipation is due, above all things, to pyloric contraction and to too prolonged stay of the food in the stomach.

But what these authors have observed in the case of dogs is not sufficient to explain morphine constipation in other animals, and especially in the case of the horse. We know that in the horse the stomach plays but a secondary part in the phenomena of digestion, comparing the stomach with the intestinal tract.

The stomach of the horse is not very voluminous, considering that it empties itself several times during a meal. Its capacity is about the twentieth part of the capacity of the intestines and the food that passes it very rapidly takes between three and four days to pass the whole length of the intestines. A medicament therefore which acts principally on the stomach and the pyloric sphincter, and which does not act on the intestines, would hardly be able to produce constipation in the horse.

We have made a series of experiments on this animal and have found that morphine, or a preparation of opium, is always followed by constipation more or less pronounced, in the sense that the quantity of dung diminishes during the first twenty-four hours.

From the anatomical disposition of the digestive canal of this animal it is probable that morphine acts principally upon intestinal peristalsis. The mechanism of the arrest or diminution of this peristalsis is as yet unknown.

That morphine which constipates the horse by diminishing his intestinal peristalsis may be indicated in certain forms of colics, especially when these are accompanied by diarrhea and characterized by an exaggerated intestinal peristalsis.

Lastly, let us discuss poisoning with morphine and the means of combating it.

The toxicity of morphine increases in proportion to the degree which the intoxicated animal holds in the zoologic scale; it takes as much morphine proportionately to poison a frog as it does to poison a human being.

When morphine has been absorbed it is almost always useless to give emetics, which can not act because the medullary centers have been paralyzed.

Repeated washings of the stomach should be made and neutralizing substances such as potassium permanganate should be given by the mouth, and also mild purgatives, such as castor oil. The patient should be kept in a rather warm place to avoid chilling the congested skin.

Cardiac stimulants should be given when the heart becomes feeble; artificial respiration should be resorted to whenever it becomes necessary; and lastly atropine should be injected, hypodermically, in small doses. Although atropine is as much an hypnotic as morphine still it produces an action on the respiratory center absolutely contrary to that of morphine, exciting that center and arousing the individual put asleep by morphine. It acts also on the pneumogastric and aids the heart's action.

What is the therapeutic value of morphine in veterinary practice?

In the dog it is indicated as a hypnotic, as a pain calmant, as a moderator of respiration, to check bowel action and as a calmant of the intestines, in the same way as it is used in man.

In the cat it is indicated in small doses as a constipant.

In the horse it may be used in calming certain vicious and especially excitable animals, but its action is uncertain. Lastly it may be used in the horse as a constipant and calmant of intestinal peristalsis in certain forms of colics and inflammations, when it is desirable to put the intestine to repose. It is on the contrary contraindicated in most cases of colic, as in colic from indigestion, from constipation, from volvulus, from gases, in all which cases evacuants are indicated. It is not useful for procuring hypnotic or analgesic effects, yet it may be used, nevertheless, as an anesthetic.

ESCULIN IN THE AMBULATORY TREATMENT OF GASTRIC ULCER

In practice it is not always possible to carry out a strictly constant recumbent position of the patient treated for gastric ulcer, and we are thus compelled to treat such cases ambulatorily. Professor Klemperer insists that the main indication of gastric ulcer treatment should be satisfied under such circumstances, namely, that the food be so thoroughly prepared by chewing in the mouth and mixed with the saliva that it arrives in the stomach as a thin watery gruel of finest comminution. Every coarse food is prohibited. It is best to have all the patient's food prepared exclusively in a pulpy state. Milk should be given only in small mouthfuls at a time. Small doses also of sodium bicarbonate should be given to saturate any excess of gastric acids.

When blood can be detected in the stools while the diet is of a nonanimal nature, then the author prescribes, to be taken on an empty stomach, four esculin tablets crushed and finely suspended in half a tumblerful of water, and the same dose repeated four days in succession. [Esculin is finely pulverized aluminum suspended in glycerin.]

Of course, the diet as described above must be strictly observed. In this way, 52 patients with gastric ulcer were treated who were not confined to their beds, they receiving esculin and a pulpy-food diet and milk. They lost completely all their subjective ailments, and blood disappeared from their stools in the course of a four-weeks' treatment.—*Therap. der Gegenw*, 1910, No. 10, in *Pharm. Zentralh.*, 1911, p. 476.

FIBROLYSIN: ITS GOOD EFFECTS IN RHEUMATIC HEART ATROPHY

Castelli reports on a case of rheumatic cardiac hypertrophy treated with fibrolysin. A 10-year-old girl suffered from this affection, showing cyanosis, tumefaction of face and extremities, weak and irregular pulse, and swelling of the liver. The usual remedies had no effect on the trouble. The author then made a trial of a hypodermic injection of 2-3 Cc. (35 minims) into the gluteal region, every other day.

After ten days, the respiration and the palpitation improved. After thirty-five injections made, the body weight increased, subjective symptoms vanished, the cyanosis and edema noticeably abated, and the cardiac dulness diminished in extent, so that the patient could be discharged. The effect of the remedy may perhaps be explained by a resolution of adhesions of the pericardium.—*Zentralbl. f. d. Gesammte Therap.*, Feb., 1911, in *Pharm. Zentralh.*, 1911, p. 503.

A Specific Treatment for Tuberculosis

OUR readers will remember the interesting paper contributed by Dr. W. C. Goodwin on this subject to CLINICAL MEDICINE for January. The doctor has a further contribution on the same subject in *The Medical World*, for September, in which he describes his technic of administering the drugs upon which he principally depends for the successful treatment of tuberculosis, namely, calcium sulphide, sodium sulphocarbolate, and zinc sulphocarbolate.

Goodwin calls calcium sulphide the most powerful general internal antiseptic now in the possession of the profession. He calls attention to the fact that it is not well absorbed in granules containing more than 1-6 grain. The dosage which he prescribes for the average patient is 1-2 grain (3 granules) every hour in the day time and every two or three hours during the night.

Dr. Goodwin evidently considers intestinal tuberculosis an extremely frequent complication of the pulmonary disease, and it appears from his paper that, in his opinion, the cause of the fever peculiar to consumption is largely due to the tuberculous ulcerations in the intestines. He therefore endeavors to heal the intestinal ulcers by the direct application of sodium sulphocarbolate, which is an intestinal antiseptic possessing a local action only. Since in the presence of food and the intestinal contents its antiseptic action is soon spent, the dosage must be increased, as it becomes necessary to reach ulcers located further along the digestive tract.

The fever will show no sign of yielding even with increased dosage until the active drug reaches the site of the disturbing ulcer, when the temperature will drop almost immediately. For these reasons, Dr. Goodwin pushes the sodium sulphocarbolates to doses which are sometimes enormous, omitting the drug only when its effect has become manifest by the disappearance of fever or when the therapeutic limit, shown by increasing intestinal irritation, becoming finally a diarrhea, has been reached. The diarrhea may be controlled by the administration of the strongly astringent zinc sulphocarbolate, and Goodwin frequently employs a tablet containing 4 1-2 grains of the sodium and 1-2 grain of the zinc sulphocarbolate.

For the regulation of the stools, the proper evacuation of all detritus and waste material, which is of course absolutely necessary for the healing of the ulcer, Goodwin uses compound licorice powder whenever necessary.

The sodium sulphocarbolate is given at first in doses of 5 grains every hour during the day, the tablet being best chewed and thoroughly mixed with the saliva. The administration of the sodium sulphocarbolate is preceded by the dose of calcium sulphide mentioned above. After the patient has become accustomed to the remedy and his stools have been regulated, the physician is to begin the gradual increase of the sodium sulphocarbolate. In addition to the 5 grains every hour, Goodwin gives 5 grains before and after feeding, then 10 or 15 grains, carefully noting the effect on the stools, endeavoring to make the increase amount to 15 or 20 grains every day. The dosage of from 10 to 15 grains after food is

increased to the same amount every hour, or more is given if the fever does not abate, or if the patient does not show signs of approaching diarrhea, in which case the zinc sulphocarbolate is given. In the majority of cases daily doses of 300 to 350 grains will reduce the fever, but an occasional patient requires much higher dosage; in the first patient whose case Dr. Goodwin reports, a schoolgirl of 13 years, the dose was gradually increased until the enormous amount of 700 grains was taken daily, when the fever, for the first time, came down and disappeared.

As a result of this treatment, Dr. Goodwin claims the rapid disappearance of the night sweats, coated tongue, fetid breath and borborygmi. Likewise the general sense of well-being, with the return of normal color to the face of the patient, is encouraging, but must be carefully discounted by the medical attendant and the patient kept well in hand, for relapses are always difficult to overcome and are very disheartening. With the disappearance of the night sweats, the stool becomes yellow and the urine a light-straw color. Indican, acetone, skatol, and various pathologic coloring matters are removed.

Unless the fever is high, the patients are only confined to the room. The diet is not forced. Four eggs and two quarts of milk are allowed an average patient—a larger amount only requiring a greater dosage of sodium sulphocarbolate for sterilizing the intestinal contents.

Where the patient is greatly debilitated, a good tonic, such as nuclein, is of advantage, especially if it is in the liquid form and can be placed under the tongue for absorption, following the administration of the sulphocarbolate.

A LOT OF LITTLE HELPS

In twenty-five years of strenuous country practice, ten years with the alkaloids, it would be a very poor observer who had not preserved and hung upon some of the numerous pegs of his memory some things worth recording for the benefit of his fellow workers, so I am submitting a medley of facts which I have thoroughly proven, and which are not gleaned from any textbooks with which I am acquainted.

Do not forget the effects of ergotin as an equalizer of the circulation. It is, in my opinion, the greatest agent we possess for this purpose, and one case in which I used this drug occurs to me in which the results were surprising to all present.

W. D., male, age 66, had for twenty-four hours been in a state of profound uremic coma. When I first saw him I injected hypodermically 2 grains of ergotin every half hour for three injections. Immediately after the third he roused up, asked to be propped up, jovially saluted his sorrowing family, called for his pipe of tobacco, took nourishment, and, under eliminative treatment, recovered from his desperate condition. Now, I know this sounds like one of Grimm's fairy tales, but as these same tales made a lasting impression on my childhood's mind, so this instance of this drug impressed me in recent years, and though ten years have elapsed, the recollection of the lesson is still green and has been of great benefit to some of my patients as well as to myself.

Do not forget the solution of cocaine, 2-percent strength, in meningitis. Earache is one of those small affections like toothache or corns, but quick relief is needed for this most painful of troubles, and you get it by the instillation of a few drops of this solution, warmed.

One of the minor and neglected affections is the "common cold." Here, the running nose, neuralgic pains, cough, and headache are, in the great majority of cases, aborted by gelsemin given to physiologic effect, while probably an attack of pneumonia or pleurisy can be prevented by it. Not much in this, you say, but if neglected, you will be able to recognize the importance of this treatment.

Remember that useful drug atropine in sterility in the female in which the true cause is hidden from the careful diagnostician. Cases have responded, and will, to medication for a month or so with this drug. I believe that this treatment was first formulated by a graduate—Jones by name—of my alma mater, Edinburg University.

Male fern, obnoxious to taste and repellant to stomach, is not the only specific for tapeworm. Chloroform, croton oil, and glycerin—a much more palatable mixture—is also a sure shot when given with the proper precautions.

You may have a splendid reputation for handling typhoid fever, pneumonia or appendicitis and yet fall down on chilblains, so just be sure you have on hand a supply of zinc acetate. Use a strong solution.

Washing out the stomach, dieting, and attention to the alimentary tract in children(and for that matter in adults also) generally stops constant vomiting, though not always. From 1 to 3 grains of chloral hydrate will make both patient and doctor feel better.

The active principle of the deadly nightshade (atropine) may be a power for good in bloody flux. Clean out the bowels and administer atropine. You will get a smile and profuse thanks, if nothing else, from your patient.

Let apocynin be your sheet-anchor in abdominal ascites—may be slow, but it is sure.

The term neuralgia should be dropped from the vocabulary of every physician; if you have a real neuritis of the facial nerve to treat, just use ammonium chloride in large doses, and in connection with it big doses of castor oil. See the point?

Poor mother has nights of broken rest because Johnnie has night terrors. If he does not need circumcising, give rhus toxicodendron, and give mother a chance for sleep.

If the belle of the village cannot wear a low-cut dress at the social functions because of that mole on her neck, shoulder or chest, better for it to stay there; still, if it annoys the young lady by being situated on some legitimately exposed part of the body, the "dermal caustic" will make it disappear.

The simpler the trouble, the more numerous the remedies and the more the failures. Poison-oak in some people is responsible for a very irritating train of symptoms which frequently do not yield to the numerous remedies advocated by Professor Smith or Grandma Jones. Just make an emulsion of quinine, 1 1-4 ounce, and water, 6 ounces, and apply frequently. Also give 5 grains of quinine internally, three times daily, for two days.

Then there is that disfiguring affection, ringworm. Kill it with a few applications of 20 grains of salicylic acid (pure) in 1 ounce of alcohol.

The fast young man comes to you trembling from the fear that his power of procreation is gradually being destroyed because one testicle is greatly enlarged. Treat his gonorrhea with the best remedies and put him on sodium salicylate. His swelling, also his fear, will disappear.

Don't discourage your patients with incipient tuberculosis who cannot afford sanitarium treatment. Make them wear an inhaler continuosuly until their temperature becomes normal. Prescribe the following mixture: Carbolic acid, drs. 2; creosote, drs. 2; tincture of iodine, dr. 1; spirit of ether, dr. 1; spirit of chloroform, drs. 2; and direct them to put this (5 to 10 drops) in the inhaler every two hours in the daytime and three times during the night. Of course, nourishing regimen also must be persevered in.

Alcohol is not always obtainable in cases of carbolic-acid poisoning, so rely on cream or unskimmed milk, and plenty of it. [Don't forget epsom salt.—Ed.]

If you must irrigate in your case of gonorrhea—and it is better to do so if a non-irritating injection is used—try hydrogen dioxide, 1 ounce to 4 ounces of water, followed by potassium permanganate solution—1:500, and soothe the sudden feeling of the wicked. If you cannot pass your soft catheter, attach a syringe to it, inject a warm solution of cocaine, 1-percent—the catheter will slip in.

Gruel is a fine thing, and when made of buckwheat flour and used as a diet, it will bring away any pins, safety pins, needles, nails, and other such ostrich food children sometimes indulge in. Simple, but saves a cutting scrap—or scrape.

Just nettlerash—nothing dangerous, easy to diagnose and talk sympathetically about, but this does not allay the irritation, rather tends to increase it. Fifteen drops of chloroform in water beats sympathy.

All this comes from the backwoods and may be backwoodsy to some of

your readers; however, I find it useful to me.

GEORGE HARWOOD.

Johnson City, Tex.

[These short items, gleaned from every-day experience, will be appreciated by all the "family." Many others, doubtless, can contribute helpfulness like this. Who will do so? Let's have a big bunch for our next two or three issues!—ED.]

ELLA WHEELER WILCOX ON MENTAL HEALING

In a recent number of *The Chicago American*, Mrs. Ella Wheeler Wilcox defends editorially two "new thought" healers, who were fined in New York State for treating supposed patients by "right thinking, breathing and exercising," to use Mrs. Wilcox's words. In justification of the right of these healers to practise medicine, the lady cites the mistakes of certain regular members of the medical profession. She tells of a young woman who became a victim of the morphine habit because the drug was given her by practitioners of the regular school, to relieve neuralgia, and who, after the doctors had failed to cure her, finally was saved by "a metaphysical teacher and healer."

She also tells of how an only child, a little girl of ten, was operated upon for adenoids and bled to death after this operation because the surgeon's "knife slipped." Then she asks why these physicians should escape punishment, simply because they were "regular" practitioners, while the new-thought healers, who base their treatment upon "an understanding of the laws of mind and power of thought," should be punished.

She attacks the surgeon, saying that "not more than one operation in a hundred is probably an imperative necessity." In her opinion it is time that "we ceased to give ignorant fetish worship to the medical fraternity," and finally, while she admits that "there is still a need in the world for doctors of the old school," she makes the prediction that mental and nature healers will increase, while the old-school practitioners will fall more and more into the background. "In one hundred years," she says, "thought will be the acknowledged power used by all reputable physicians to cure and heal humanity."

In the same number of *The Chicago American* there is an answer to this editorial, written, we presume, by Mr. Brisbane, since it has his terseness of expression, and goes without apology or explanation directly to the seat of the whole matter. This editorial is such a powerful one that we print it entire, with the hope that many of our readers will find opportunity to bring it to the attention of laymen, so many of whom are being taught to reason in the illogical way so well exemplified by Mrs. Wilcox's article:

In the last column on this page you will find our brilliant contributor and genius, Mrs. Ella Wheeler Wilcox. Her article criticises the doctors of the regular scientific school, praises socalled "mental healing", and expresses the opinion that within a hundred years doctors will do all their healing with the power of thought.

Mrs. Wilcox' article is interesting, but we are unwilling to print it without a few qualifying comments.

The great poetess is right when she criticises the doctor who, unable to deal with the neurotic young girl, makes of her a morphine fiend, to let himself out of his difficulties, takes money from the girl's father, and in return inflicts the most dreadful curse upon her. *Such a physician should be put in jail and kept there.*

It is true to say that the socalled mind-healing, faith-healing, Christian science and other cures of the same kind produce admirable effects in diseases *which have their seat in the brain.*

The brain can cure diseases of the brain—such as are not physical diseases; that is to say, diseases affecting the tissues or physical substances.

Mind-cures, faith-cures, Christian science, by bringing into play certain forces of the mind, can combat, and sometimes cure, illness caused by a weakened, disorganized mental and nervous condition.

It is in substance true, although a little harsh to say, that the modern mental healers "can cure any disease that you haven't got"; that is to say, that they can cure a disease which is entirely mental and largely imaginary.

It is untrue, and dangerous to say that any mental healing can take the place of a skilful surgeon.

Thousands of children are made miserable throughout life because they are not freed from adenoid growths—abnormal developments in the back of the throat which prevent proper breathing.

Only the surgeon's knife can remove and cure adenoids. No faith healer, mental healer, Christian scientist or anybody but a competent surgeon can do that, or ever has done it. Sometimes adenoids may be partially absorbed, extraordinary physical vigor may fight successfully against them. And the placid, happy mental state of the individual

who believes in faith-healing may help along a good physical condition.

But you need a surgeon to attend to adenoid growths.

You need a dentist to attend to your teeth.

You need antiseptic treatment or, better still, aseptic treatment, in all surgical operations.

You need a skilful doctor "of the old school" in childbirth, and if you have not got one you risk the life of the mother and child—and you ought to be put in jail for doing that. Some faith-healers get around the childbirth-problem by saying that it is not necessary to have any childbirth, and that if we were sufficiently scientific material births could be eliminated. But that is not very satisfactory when the child arrives.

The surgeon's knife does slip sometimes. If the surgeon is incompetent he should be driven out of his profession. The plumber's tools slip sometimes, and the job is bungled. Such a plumber should be driven out of his profession.

Many surgeons and many plumbers lack skill.

But that does not justify the silly notion that you can install plumbing in a house with faith or Christian science, or that, with those agencies, you can remove a vermiform appendix.

Nobody should interfere with a faith-healer or or mental healer because that individual takes a dollar or ten thousand dollars from the *adult* who wishes to employ him.

So far as *adults* are concerned, there is no harm in allowing faith healers to treat their *noncontagious diseases*, from stone-bruise to lockjaw.

If the adult is willing to die of a noncontagious disease in order to demonstrate a theory, let him. Such an adult can be spared.

But faith-healers and others must not be permitted to deal with contagious diseases or pretend to cure them—that is dangerous to the public at large.

The body is a building like any big building in a city. Your body has a framework, which is the skeleton. It has plumbing made up of the veins, arteries and alimentary machinery. It has electric wiring, which is the system of nerves. It has a great engine, which is the heart, and it has a magnificent ventilating apparatus, which is the lungs.

The body requires the ministrations in each department of those that have made a specialty of its various parts—just as a great building requires its architect, builder, plumber, engineer and janitor. The janitor is the family physician who calls in the specialist and tells him what is wrong.

Our bones, blood-vessels and nerves need the scientific osteopath, who prevents pressure of the bones upon nerves or blood-vessels, stimulates functional activity and gives to the different parts of the body the proper supply of blood and nervous energy.

The lungs require their specialist in case of emergency and the various other ills that flesh is heir to; the dreadful cancerous growths and the contagious diseases require the treatment of learned, earnest scientific men.

Real diseases cannot be effectively combated with the treatment of the amiable faith-healing saphead who meets the situation with a declaration that there is no disease, and smiles amiably when the patient dies.

The doctor who attributes his own shortcomings to the patient's "heart failure" or "inability to rally after an operation" may be a dangerous quack. But the good physicians know that and they say so.

Such a surgeon who attributes the patient's death to the patient's heart is no worse than the faith-healer who attributes the patient's death to the fact that he lacked the right brand of faith.

It is not a fact that one hundred years from now all doctors will cure with thought.

One hundred years from now and one million years from now matter will act upon matter, and the agency used will be force directed by thought.

Thought is the directing agency.

There are three things in the world: Thought, which rules and directs; Force, which carries out the orders and conceptions of thought; and Matter, in which thought realizes itself and its visions.

A hundred years from now and a million years from now the surgeon's knife will remove the tumor, if it still exists, just as the plow will cut through the soil and the hammer will carve the stone.

But perhaps in a few hundred years, and certainly in a million years, increased intelligence among men, greater self-control, absolute sobriety, wise living, scientific knowledge, even among children, will make disease almost unknown and limit the activities of physicians almost entirely to prophylaxis, which is prevention.

But even in a million years, and in ten million years, if the human race lasts as long as that, which it probably will, science, created by the mind, directing force and acting upon matter, will rule the world.

When you find a faith-healer who can build a henhouse with faith and without tools or move a pebble half an ounce in weight without touching it, when you are willing to trust your plumbing to a faith plumber who says he can cure the leak by thinking about it, then trust your body and your internal plumbing to the medical plumber who cures with thought.

With the exceptions above noted, we admire the article of our genius, Mrs. Wilcox, and cheerfully print it, believing that all sides should have a hearing.

TIMELY AND POWERFUL

It is rarely that there appears an article of such direct and general interest to those of every class as that by Dr. George Thomas Palmer, in the August issue of *The American City*, under the title, "The Shortcoming of Municipal Public Health Administration." It is a lucid presentation of appealing facts, supplemented by just conclusions and suggestions.

Dr. Palmer, whose wide reputation in the field of conservation of the public health gives weight to all he says, does not hesitate at a showing such as should arouse the community of every city to a sense of what should be done for the sheer preservation of life. We are becoming wiser than we were; we no longer deliberately pave

the way for pestilence; we assume to have a regard for sanitary laws; yet, each year, especially in the cities, thousands and tens of thousands die whose lives could have been saved. Why this condition exists is made clear in Dr. Palmer's article. There is maladministration by the people. Their city health departments are not sustained in being what they should be.

Where the fault lies is clearly in the ignorance or apathy of the community which will not adequately support its protectors. As the article demonstrates, every city should have a health department with a competent, earnest and enthusiastic physician at its head who, shall be so well compensated for his work that he can devote all his time and thought and energy to its accomplishment. He should have such assistants as he may require. Such an expenditure would be the wisest and best within a city's limitations. But, how often is it made?

The work of maintenance of a city's health should be broad indeed in its scope. It should be more than the mere meeting of emergencies. There should be appropriations, not only for the prevention of disease, but for use in constructive work for the future betterment of all conditions affecting the public health. There should be enforced a regard for general cleanliness; there should be maintained a perfect system of mortuary data, essential in a host of ways; there should be provision, under the best conditions, for the isolation of those afflicted with contagious or infectious diseases; for the preservation of infant life, a guard should be kept over the quality of the milk supply; in short, there should be shown an earnest appreciation and observance of the universal and stern law that self-preservation is the first law of nature. The cities seem to have forgotten it.

Dr. Palmer's evidence as to conditions in no less than 44 Illinois cities of 3000 population or over is sufficiently startling. In some of them disease and death seem to be little less than courted. Not one pays a sufficient salary to the head of its health department to warrant a competent man in devoting all his time to his work. One city of 59,000 pays $1,500 a year, "the highest salary paid to any municipal health officer in Illinois outside Chicago." A city of 70,000 pays $1,200, one of 51,000 pays $1000, and others pay all the way from $900 down to $25! A number pay nothing. The situation speaks for itself!

The remedies for such conditions as exist are well considered and well described in the strong article here considered, though space is, of course, not available for their presentation. They are worthy of general attention and universal adoption. Dr. Palmer has made a distinct and valuable addition to the literature of a subject of present and universal interest.

"NOT TO BE REFILLED"

The greater part of my medicines I dispense myself, but when I write a prescription, I write across the bottom, "Not to be refilled." My druggist tells me he refuses three and four a day, and many patients come back to me after he has refused them thus. The druggist had made and gave to me a rubber stamp reading as follows:

DO NOT RE-FILL

The suggestion may be worth something to the members of the "family."

H. L. Harley.

Pleasantville, N. J.

TREATMENT OF COUGH

For irritation: codeine, zinc cyanide, cannabis, iodoform, steam inhalations.

To stimulate secretion: emetin, lobelin, apomorphine. These drugs will moderate congestion.

To arouse sensibility and throw off retained secretions: sanguinarine nitrate, scillitin, ammonia.

Best cough remedy ever used: iodoform, cicutine and hyoscyamine.

For dyspnea: atropine, aspidospermine.

For bronchorrhea: strychnine, cubebin, oil of turpentine, benzoic acid, atropine, colchicine.

For offensive sputa: menthol, phenol, creosote.

For fever: veratrine, aconitine, gelseminine.

As a tonic: quinine.

For general relaxation of tissue, which hinders progress: berberine.

General debility: strychnine.

For coughs due to infective diseases: sulphides of calcium and of arsenic.

For lingering cough: sanguinarine; if secretions are free, add arbutin or benzoic acid.

For hemoptysis: atropine.

Bronchial hemorrhage in children: lime.

M. G. Price.

Mosheim, Tenn.

TO STOP NOSEBLEED BY PRESSURE

I have used the following plan for controlling nasal hemorrhage, a procedure that originated with some physician in the East who was subject to the trouble.

Take a condom, put it over the distal end of a medium-sized soft-rubber catheter and tie it to the catheter just the length of the nasal fossæ, so it will not swell out at either naris. Wet the condom and push it into the affected nostril and inflate by blowing through the catheter; then clamp the catheter. The condom is so thin that it fits into all the cavities and controls the bleeding. When you wish to remove it, take off the clamp, which lets the air out, and it can be withdrawn without causing irritation. I think this is easier and better than packing.

E. Smith.

Lawrence, Kans.

CODEINE AND HABIT FORMING

In a recent editorial in Clinical Medicine the writer told of taking codeine in milligram-doses for a cough, the result being that he started a young codeine habit—and kept the cough.

The rule of giving drugs in minimum doses repeated to effect is a very good general rule, but to make it good, it must be used with brains, and modified to suit different conditions. Especially must the doctor consider the characteristics of the drug he uses.

Now, a habit is formed by repeated doses of one of this class of drugs. No habit can possibly be formed by a single dose. If the dose be increased, toxic or lethal effects may follow, but no habit. On the other hand, a habit may be formed by the smallest doses if repeated often enough.

Supposing codeine to have been the proper remedy in the editor's case, he should have taken half a grain to start with. A single dose would then probably have cured the case. A second gross dose might have been required twelve hours later. If more than three doses of a habit-forming drug were required in any one case, I should say that a mistake had been made in selecting the drug.

These are emphatically remedies for occasional, not for continuous, administration. They should be given "to effect," or not at all. But the aim should be to get all or as much as possible of the desired effect from a single dose, not only to avoid their habit-froming effect, but because only in this way can we get the maximum benefit from the amount of one of these drugs administered. We get a better effect from less medicine by giving it in one massive dose than by dribbling along with minimal doses. Chas. F. Morrison.

Apopka, Fla.

A DOCTOR'S PROBLEM: THE JEALOUS WIFE

Will someone please offer a solution, or at least some advice of the problem of the doctor and husband? How can he be a good physician, doing his duty to the sick, if he has a wife that watches him like a Pinkerton and misjudges all his actions and words used in his daily work, everlastingly making insinuations and misinterpreting motives?

Is a doctor obliged to give up his life-work in order to escape from the torment of his helpmeet whose brain concocts imaginary neglect until the worry of it unfits her for society; robs her of the pleasure of caring for the home and her children? Would like to hear from the lady physicians and brethren who have had similar experience.

"Iowa."

[The matter is of more than individual concern. One worthy man was driven from practice, and to a drunkard's grave by his wife's unreasonable jealousy. Whenever a woman entered his office the wife would walk up and down before the door; and in a few minutes knock, and when the door opened she would ask in audible tones what "that hussy was doing in there so long"! One wise woman said that when a girl married a doctor she should be deaf, dumb and blind—deaf to the insinuations of jealousy, dumb when tempted to vent it on him, and blind to his faults. Another wise one said that after seven years' married life she found her husband without a fault; and I saw that unconsciously the husband was living up to his wife's idealization. A doctor's wife must not be jealous; and the doctor must not let her be jealous, but insist on his right to demand her implicit confidence because he deserves it. Here the force of manhood must be asserted for the happiness of both.—Ed.]

"DOCTOR SHAW"

There is no doubt all of the readers of this criticism know that in the tight little Isle of Britain there dwells one Bernard Shaw, an Irishman. They have probably heard of him as a writer of novels and unusual plays, and will be greatly surprised to know that besides being a playwright and novelist he is also a doctor. Not a doctor of laws, or philosophy, or medicine, but a doctor of society; that is to say—a socialist.

Now, "Dr." Shaw has recently published a play dealing with doctors—not quack-doctors, mental healers, or Christian scientists, but ethical doctors of medicine—in which he has stated some very plain truths in a very forcible manner, along with some fiction. This is quite an innovation, for, while the medical profession has grown callous to socalled "exposures" by mento-religious cultists and quacks, it has been a long time since it has had so gifted and frank a friend to tell its faults, diagnose its disease, and prescribe treatment.

Shaw's great specialty is diagnosis. He sees everything in the nude, stripped of all superfluous frills. That is the quality what makes him so useful to the present pathological social era. But like some of the regular doctors he depicts, he makes very bad blunders when he comes to treatment—and if humanity ever attempts to put any of his individualistic and metaphysical theories into practice, its sudden demise will have been the direct result of its credulity.

To be specific, "Dr." Shaw declares that doctors of medicine are not always conscientious in their treatment of human ills and not scientific in administering to those ills. But neither is Dr. Shaw, else he would not adopt the foray of a paranoiac's imagination as a basis upon which to rejuvenate society, especially when we have scientific knowledge upon that subject, and know full well the reason for society's present status and the necessary changes that must occur before any Ponce-de-Leonian revivification can come about; and this knowldege is in direct opposition to "Dr." Shaw's therapy.

For instance: In "Man and Superman," Shaw tells us the way to right existing social conditions is to breed a race of supermen (with Shaw for brood-master, let us suppose, else the scheme could not be carried out) who will have conquered the world and become so far above the present laws, morals and religions, as to make all these institutions superfluous; when they will atrophy from loss of function and become but vestiges, to be explained only by learned social pathologists. The scientific explanation, on the other hand, shows supermen to be figments of an opalescent vision, and the needlessness of morals, laws, religions, etc., a result to be obtained by an economic evolution whereby the method of obtaining social existence will have been simplified and justified into a classless society where class scarecrows are no longer used. In fact, Shaw, when planning for the future, only states what we have today, for we really have supermen who are immune from all laws and customs that the majority of people are compelled to obey.

Now, what is the difference in foolishness between advising Biddy O'Toole, over her washtub, that what she should do to cure

her heart disease is to take carbonated baths, eat champagne jelly, and spend the season in the mountains, as Shaw says the doctors do, and to advise her, in order to redeem the world, to propagate "supermen" who will be above economic law, as Shaw does. What is really needed in both instances is an environment that first will not compel her to labor beyond her strength; and, second, that will educate her children and grow them into thoroughbred humans—not imitations of savage gods.

Such is the science of our socialistic critic; but, as he himself says, we are all tarred with the same brush. If that is the case, what benefit arises from the pot calling the kettle black?

If the scientific attitude is to be unscientific, why talk about science at all except as a mental gymnastic? It seems that it is not necessary for socialists to be scientific on a broad plan. Take Upton Sinclair as another example. He has grown wrathful, eloquent, and pathetic in turns over the fact that so many people are in a chronic state of starvation, and now he comes out with the statement that the universal panacea for human ills from chicken-pox to syphilis, including tuberculosis, is starvation.

Who is responsible for this condition of affairs? The people—because the people are the source from which all idealizing springs. You can not blame Shaw. There has never yet been a human who could withstand temptation; and he has to live. Given an eager public ready to pay to learn of our capitalistic conditions and a private social practitioner eager to make his living by diagnosing our capitalistic conditions and prescribing treatment, taking as his vehicle a clever drama keen with satire and ready wit, and can you dream of any other results than those we find at present among some of our literary socialists?

What shall we do to offset this conscienceless playing with our desire for amusement? There are just two things necessary: First, socialize the socialists. Second, every person make a thorough and painstaking investigation of past records of development, the present status of existing conditions, and the logical future attainment. They will be able to get many helpful works along this line cheap. One can even purchase Shaw's Prefaces at fifty cents per, to each one of which a play is attached for good measure. By obtaining the first requisite, we shall make it unnecessary for these literary geniuses to exercise their wonderful powers of delineation and speculation to obtain a livelihood by selling the results upon the market. In other words, by doing away with our literary men as tradesmen, we shall eliminate their commercial proclivities. Under the second advance, by everyone becoming conversant with the economic laws of change, we shall have reached a position as a race where professional social doctors will be superfluous (those pretentiously wordy but not profound quacks, hand-tooled, and issued every little while by the Roycrofters unthinkable) and obtained an intellectual eminence hitherto unknown.

G. M. Hawkins.

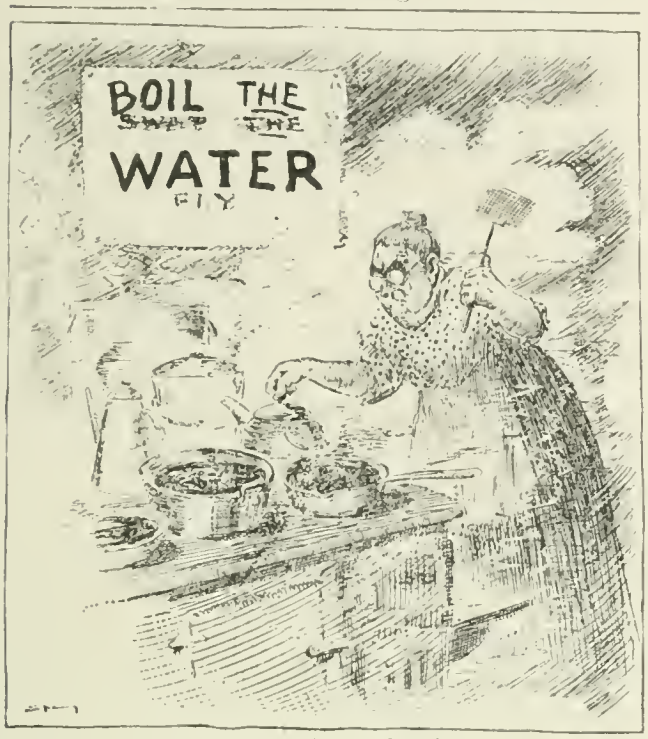
Seattle, Wash.

SWATTING THE FLY

The "swat the fly" propaganda that is at present being carried on throughout the country finds its best and most sensible expression in the "Sanitary Spelling Lessons" published in *The Bulletin* of the Chicago School of Sanitary Instruction, Department of Health, for August, 1911. Thus, among other things, the editor writes: "Garbage and moisture spells decomposition. Decomposition and flies spells danger." The injunction to swat the fly, however necessary it may be, is, when we consider the matter properly, only paramount to locking the barn door after the mare has been stolen. Flies, as everybody knows, find a breeding place in garbage, manure, and other decomposing material, such as dead-ripe fruit. It does not need proof that flies are most numerous around garbage cans, on manure piles, on fruit stands which are not kept clean, and in dirty kitchens, while in places which are scrupulously clean, as well as in covered garbage-cans, or manure piles which have been treated with kerosene or other substances obnoxious to flies, these little pests do not

manifest their presence to any considerable degree. In these places they deposit their eggs and produce in numerable new flies to keep up the nuisance.

"Life Is Just One D--- Thing After Another."



As seen "Down South"

"It is, then, simply another instance of prevention being better than cure, and far better than swatting the flies would it be to prevent their being propagated by the cleanly disposal of kitchen waste, by cleanliness in regard to garbage-cans, which invariably should be covered, in the treatment of manure piles with such substances as prevent the flies from breeding, and, in short, in all precautions which prevent the flies from multiplying by depriving them of the proper breeding-soil.

"If we extend the swat-the-fly gospel in this manner, it will assume a common-sense basis and a promise of success. If, however, we limit our efforts to removing the effect and leave the cause undisturbed, we shall never succeed in eliminating this fruitful source of the spread of contagion."

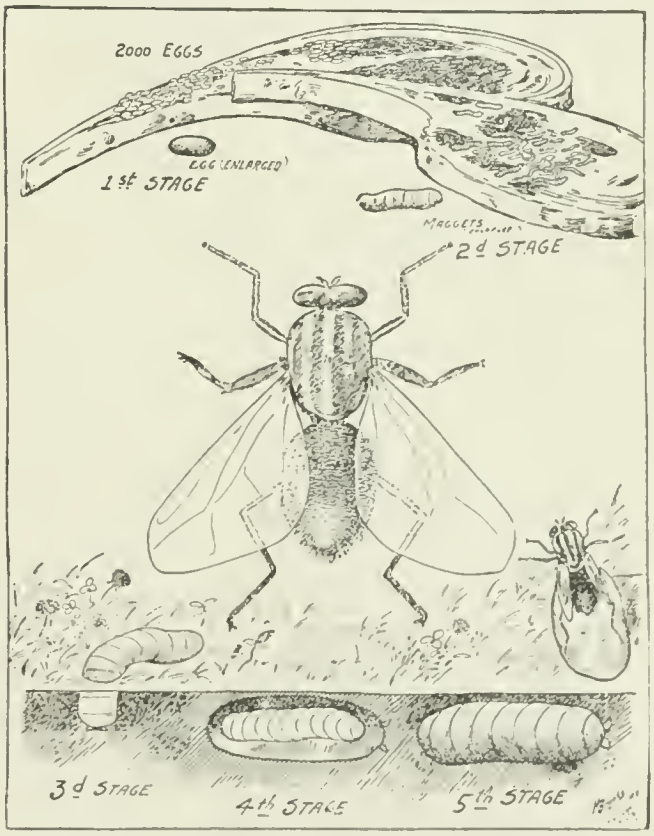
INGROWN TOE-NAILS. GONORRHEA

Dr. Breakstone's article on the treatment of ingrown toe-nails (See Sept., p. 960) looks better on paper than to experience it. I might say that in regard to a lot of our treatments. If we had to submit to that operation first ourselves, the other fellow would not get it. If any of the brethren have ingrown toe-nails, I would suggest my own treatment to be tried first, and I hope it will save you the experience I personally have had.

The nail will grow out and in breadth but the skin will adhere to the nail, and if pulled out, becomes dry and tough. This binds the nail at the matrix and crimps it—rolls it under. Then the nail is not only too narrow to cover the flesh but the sharp edges cut into the flesh. What shall we do?

Keep the skin well pushed back on the toe and put a little cotton under the sharp edge. If infection has set up, one drop of guaiacol on the cotton will give relief. The nail will grow out perfect, whereas, if you cut it out and don't take the same care as I have outlined, you will have a bad-acting nail the same as I have. The shoe is to blame for keeping the toe sore.

HOW TYPHOID FLIES ARE MADE



First stage: Fly lays about 120 eggs on decomposing animal or vegetable matter, preferably manure.
Second stage: Eggs hatch into maggots in one day or less.
Third stage: Maggot crawls into ground when about five days old.
Fourth stage: Surrounds himself with shell, in which he lives about five days.
Fifth stage: Emerges from ground with rudimentary wings, but wings develop very rapidly and he's soon ready for business.—*Chicago Health Department Bulletin.*

For subacute gonorrhea try the following solution with which to irrigate with return flow:

Salicylic acid.....grs. 20
Boric acid.....dr. 1
Water.....gal. 1

For the chronic gonorrhea (or morning drop) try thymol, 30 grains, dissolved in a little alcohol, then add to one gallon, following the irrigation by massage of the prostate gland.

S. E. Peden.

Centralia, Ill.

THAT OBSCURE CASE

In reference to the case reported in the September number, page 997, by W. E. D., Iowa, I would venture the following opinion. The child started with a mild enteritis, which was aggravated by calomel in repeated doses. This, together with the arsenite of copper, produced toxic symptoms and death. You have a typical picture of arsenical poisoning. Too much drugging for a child of twenty-two months.

H. R. Faringer.

Mount Holly, N. J.

[See the article on pages 1202-1205.—Ed.]

INGROWN TOE-NAIL

I have read with great interest Dr. Frazier's criticism in the October Clinical Medicine. There is no doubt that mutilation, if it is unnecessary, is criminal. In my article, I mention that scraping the surface of the nail occasionally with any sharp instrument will sometimes *relieve* ingrown toe-nail. The doctor says that it is necessary to scrape the nail occasionally. It is necessary almost daily, if the case is of long standing, and then what happens to the nail? Either hypertrophy or necrosis, both of which are great annoyances, if not exceedingly painful.

I have only recommended removal of the part of the nail where the case has come to infection of the toe, with great suffering by the patient. Inasmuch as we cannot stand if our feet pain us, it certainly is wise to do something to cure, and not merely relieve. There is no mutilation whatever in the operation advised in my article.

I can say that circumcision and appendectomy, and other such operations, can be put in the same category. The conditions for which these operations are performed are very often easily relieved, yet we see a great deal of suffering, yes, even death, if we allow the pathologic conditions of the organs involved to continue. Is it better to suffer, or be treated constantly for a condition, than to do a radical operation which might cause some slight mutilation? I do not think that anyone would reason this slight mutilation to be criminal. It seems to me much worse to have a patient undergo continuous pain and inconvenience than to let him suffer some slight mutilation.

Benj. H. Breakstone.

Chicago, Ill.

"OBSCURE INTESTINAL DISEASE"

Under this caption W. E. D., Iowa, describes (Sept. Clinical Medicine, p. 997) his treatment of a case of obscure intestinal trouble and asks what others would have done under similar circumstances.

The doctor in question is evidently sincere, so I will not in the least blame him or his treatment or criticise him in a spirit of harshness, but will simply ask the question, Would not a treatment like that described almost "lay out" a well-nourished mule, to say nothing of a sick infant 22 months old?

I have to deal with these cases daily. I find infants' temperature first time frequently 105 degrees and over, and at first sight it is often impossible to make a positive diagnosis, so I am often inclined to call them "obscure intestinal disease."

Only yesterday I was called to a baby, 10 months old, with 105° F. temperature, greenish stools, pulse 180—evidently a very sick child. I prescribed for him (the treatment I will give presently), only to find him, the next morning, smiling and temperature down. Last night I had another one-year old baby: temperature 105°, vomiting, passing greenish feces with small specks of blood; he was crying continually and throwing head back. I saw him just a few minutes ago, and if I am

not badly mistaken the crisis is past and the infant is on the road to recovery—a great consolation for the prostrate father, who at the prospect of losing his only child has been nearly hysterical all day; the mother not much better.

The treatment as instituted by me, and probably by thousands of others, is first to calm the parents, that is, by my own demeanor and actions, I positively show them that I am master of the situation. This, of course, you cannot do if there is any doubt in your mind regarding your own qualifications. The fears allayed, I go about my business of administering to the sick child.

In a case with the symptoms described by W. E. D., say of "obscure intestinal disease" in an infant of 22 months, I should have given the same treatment as I gave the first child of yesterday mentioned. I had a tub of lukewarm water fetched in and ordered the mother to put the naked child in the water and gradually and slowly wash it, adding a half pint of cold water every few minutes until the water was cool, or about the ordinary temperature of hydrant water in the month of September. After a good wash, lasting 15 to 20 minutes, we dried the baby with an ordinary towel and put him to bed, dressed in a thin nightgown. I then gave calomel, gr. 1-2, with soda, every two hours until the bowels began to move; and also a mixture of tincture of aconite and potassium bromide in simple elixir, a dose every hour or two. The next morning the child was better, temperature down, no pain, no crying.

The second child went through the same procedure as to bathing, but instead of calomel he got one desertspoonful of aromatic castor oil, also 2 1-2 grains of aspirin every two hours during the day. The oil was to be repeated every six hours until the bowels moved. Tonight he was better. If calomel or oil had not acted I might have irrigated the infant's rectum with water and glycerin or simply with cold soapwater, as I sometimes do.

In the particular case that the Doctor treated I might also have given massage to the extremities. Now, of course, as we do not know the diagnosis in this case of the 22-months old child, the pathologic condition here might have been entirely different from the cases here related by me; but that does not matter greatly—a treatment similar to the above is what I should have given under similar circumstances—and that is what the doctor asks for.

But the idea of giving this tender infant calomel, sulphocarbolates of zinc and soda, arsenite of copper (which would of course color the stools, but not necessarily require doubling of the dose), besides aconitine, veratrine, and digitalin; waiting a while and then repeating; again waiting and then doubling doses; then inaugurating hot baths, followed up for two days with woolen cloths wrung out of magnesium-sulphate solution, and then give epsom salt internally, besides some more calomel and castor oil, arsenite, sulphocarbolate, inunctions, emetine, quinine, and echinacea, hypodermic injections of glonoin and strychnine! Gentlemen, I ask again, how could this poor infant ever recover? Why, I say with conviction, that babe had no earthly show for his life.

I am inclined to believe that in this case, if absolutely nothing had been given, only tepid and cold ablutions and a little massage of extremities, this sick child might have recovered.

H. G. Henriksen.

Newmarket, Minn.

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[Seems to me Dr. Henriksen draws his indictment against W. E. D. just a bit too strong. The latter didn't give all the different remedies mentioned at the same time, and the dosage, for the most part at least, was moderate. As many of us might have done under the circumstances, he seems to have stumbled around in the dark a bit, meanwhile just "trying things," and it isn't to be wondered at greatly if he tried too many. But suppose we put the shoe on the other foot—or put Dr. Henriksen in the "witness's box." Might we not criticise *his* treatment in spots—for instance, giving aspirin in 2 1-2 grain doses to a one-year old child?

However, as we still are uncertain as to the diagnosis of that child's ailment, we

shall have to rely on "general principles," until some one teaches us a better way or submits more light. "General principles" call for careful, gentle cleansing of the alimentary canal, from both openings; intestinal antisepsis, cautious feeding, and equalizing of the circulation. You know how we should go about it to get these results!—Ed.]

IS IT POLIOMYELITIS?

Dr. W. E. D.'s article, in the September number (p. 997), on "Obscure Intestinal Disease", calls to mind a recent case in which two able physicians as well as the writer were until near the end in doubt as to the diagnosis.

The patient, age 19, of imperfect mental development, but splendid physical constitution, came first to my office on July 4, complaining of soreness in both sternomastoid regions, the muscles being somewhat swollen and tender. There was no coryza or tonsillar irritation, apparently, more than ordinarily, his tonsils being somewhat hypertrophied. I ordered at that time hot compresses, and prescribed aspirin and phenacetin, 10- and 5-grain doses, respectively, combined in powder, six doses to be taken three hours apart. On the 5th I had report of some improvement. (A laxative had also been administered.)

On the 6th I was called to see him again. I found him in bed, his temperature 103° F., tongue clear, no abdominal tenderness, no pulmonary, cerebral or joint symptoms more than would be coincident with the fever range, pulse slow (running 100 to 105), full and soft. I put him on intestinal antiseptics and a fever mixture, giving instructions to sponge with warm water every three hours if the fever did not abate.

I withheld diagnosis. On the 7th there was some borborygmus, tongue white-coated, temperature persistently 103° to 103.6° F. until evening, when at about 8 p. m. it abated to 102.5°, but after midnight ran to 104 degrees, and the patient had a sleepless night. On the 8th there was a little general abdominal tenderness; in the afternoon delirium.

I now made a provisional diagnosis of typhoid fever, and because of the tongue being clear and the patient complaining more of the sternomastoid tenderness (which had not been so much in evidence in past two days), asked for counsel, saying that the diagnosis was doubtful, typhoid being as near as I could arrive at, at this stage of the disease. The bowels had been loose, which I attributed in part to the treatment. The characteristic typhoid stool-odor was not in evidence. Dr. C. of Walville saw the patient on the 9th, and on the 10th Dr. T. of South Bend was called with us.

In the meantime the patient had become wildly delirious and had to be restrained. Typhoid symptoms had cropped up in the shape of tympanites and diarrhea, and a dry, brown tongue, temperature rising to 105.4° F. Stools still lacked offensive odor or mucous character. There had been no vomiting, except on one occasion following a stiff dose of calomel.

The patient on the 9th became semi-comatose and speech was thickened markedly; also complained of numbness of right hand. So we surmised that the trouble was basilar. Later in the day there was beginning palsy of tongue and face, and the patient gradually sank into deep coma, with vesical and sphincteric incontinence, dying on the morning of the 10th. These symptoms, recorded in this paragraph, developed after the departure of Drs. C. and T.

This, to my mind, was a case of poliomyelitis involving the upper portion of the cord and base of brain. Two years ago, there was a parallel case in this community with an almost identical course, occurring in a child of 9 years.

My experience with these unfortunates includes 8 cases in 17 years' practice and consequently I do not wish to pose as a critic of Dr. W. E. D.'s case, but suggest that it seems to have had some of the phenomena which mystified me in the case recounted. The diagnosis of poliomyelitis is not always plain, and some writers expressly state that the diagnosis is frequently not made before onset of the paralysis—and that the paralysis does not always de-

velop. Indeed, they assert that if the patient survives the onset of paralysis he will probably recover.

Dr. T. and Dr. C. with myself tested the reflexes on the morning of the 9th without finding any loss of tone, and the sphincters were paralyzed in four hours afterward.

Of treatment, I can say that I am sorry we did not use urotropin earlier in the disease, and that in future doubtful cases I shall do so while the case is still in the fog. Of other measures employed, bromides and chloral for nerve excitement, ice-bags to head and spine, counterirritation and febrifuges, all in heavy doses, were alike unavailing in the case of this unfortunate, the symptoms progressing unchecked.

I think that, as we learn more about this dread malady, we shall find more patients who had been put in other classifications to have been suffering from acute anterior poliomyelitis, bearing in mind that there are many complete recoveries.

E. W. S.

Dryad, Wash.

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[I am glad that E. W. S. has suggested the use of hexamethylenamine (urotropin) in anterior poliomyelitis. There are good theoretical grounds for believing it of value in this disease, though the clinical experience with it has, thus far, been rather unsatisfactory. Was W. E. D.'s case one of anterior poliomyelitis? We confess that we do not know—but it certainly is to be considered a possibility.—Ed.]

ARBUTIN FOR DECOMPOSITION OF URINE

In speaking of arbutin, you do not mention what I consider one of its most important therapeutical properties: the prevention of decomposition of urine in cases of residual urine. For several years I used urotropin in such cases, with good success, and then I commenced the use of arbutin for the same purpose, with like success. I am now alternating these two remedies, using one for a few weeks and then the other for a like period. Both possess the power of preventing the decomposition of the urine in a similar manner. I do not consider it advisable to continue the uninterrupted use of any remedy for any length of time. Arbutin increases the diuretic functions of the kidneys. I do not know what (if any) injuries the kidneys may receive from overstimulation from this drug. Its use greatly increases, at times, the secretion of urine.

M. R. Chamblin.

Decoto, Calif.

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[So far as we have been able to discover arbutin is nonirritant to the kidneys. We have used it in large and small doses, but without any subsequent harm or discomfort that we could discover. Dr. Chamblin is absolutely right as to its value.—Ed.]

CONDENSED PELLAGRA FACTS

Symptoms.—It gives rise to seven kinds of ills: It drives one crazy. It drives another into the water. It draws one backward. It makes another walk bent. It gives another vertigo. It gives one ravenous hunger. It causes rashes on the skin.

Very contradictory symptoms are often seen:

EITHER	OR
Loss of appetite	Voracity
Somnolence	Insomnia
Mutism	Loquacity
Constipation	Diarrhea
Hydromania	Repugnance to water
Immobility	Excessive mobility
Mydriasis	Mycosis
Salaciousness	Impotence
Stupor	Mental excitement
Marasmus	Florid health
Apathy	Activity

Diarrhea.—Bowels, move many times a day; thin, greenish, yellowish, offensive, bloody mucus; may be involuntary; obstinate hemorrhages. Persists through spring and summer months, with slight recrudescence in October.

Alimentary symptoms.—Burning in throat and stomach. Anorexia. Mouth congested; buccal mucosa red and covered with small ulcerated areas. Tongue fiery-red, papillæ prominent. Ptyalism, with tenacious, white ropy saliva which hangs in strings from upper to lower teeth.

Eruption.—Dorsal aspect of hands a deep-purplish color, covered with dry, hard,

cracked epidermis; line of demarcation at wrist where sleeve ends very distinct; burning and itching; fissured between fingers; desquamation of dry, bran-like scales.

Nervous system. — Spirits depressed; melancholia, dementia; delirium. Vertigo a prominent symptom. Occasional mutism.

Temperature and circulation.—Temperature less than 100° F.; in bad cases 102° to 108° F. Pulse 80 to 100; rigid, incompressible , like whip-cord. Air-hunger late. Respiration failed first.

Treatment.—Withdraw all fats and oils except castor oil. Clean out with calomel and salines. Symptoms are worse when bowels are checked, and better when cleaned out. Calcium sulphide has acted like a specific; 1-2 to 2 or more grains thrice daily. Under its influence stools reduced to normal; redness of tongue fades; ulcerations heal; hands clean off.

Use no ointments locally. Alcohol is contraindicated, and intensified symptoms. Insomnia and insanity relieved by clearing bowels, castor oil used. Trional, 5 grains, produced sleep, repeatedly, within five minutes. For pain in stomach and bowels, morphine or paregoric, though relief may follow enema of saline solution. As intestinal antiseptics, used zinc sulphocarbolate, bismuth subnitrate and hydrastis, with ginger and lactated pepsin. Iron, arsenic and strychnine as tonics.

Diet.—Milk, cereals, vegetables, lean meat, shredded wheat, oatmeal, eggs, chicken, fresh buttermilk. Feed generously.

M. G. Price.

Mosheim, Tenn.

PELLAGRA THOUGHTS, AND A CASE

Among the late theories about the origin of pellagra are that rancid fats, as suggested by Dr. C. S. Pixley, or semi-drying oils, as advanced by Dr. G. C. Mizell, are causative factors. These two hypotheses were discussed editorially in The American Journal of Clinical Medicine for August. There has not been enough evidence produced to cause me to doubt that spoiled corn has given rise to this disease. To quote from "Pellagra" by Dr. A. Marie (translation by Drs. Lavinder and Babcock, page 120): "In concluding his experimental work, Lombroso states that 'with such evidence as has been submitted, it does not seem longer possible that the specific cause of pellagra can be doubted, and it is certain that the etiology of other maladies can present documents neither more numerous nor more convincing'." On the same page I read: "He has, he tells us, spent more than twenty-five years of his life at it" (i. e., labors on pellagra).

One of the objections to the corn-theory is that cases have developed in subjects who have used, as they thought, a good home-grown corn. "It is worth while to note here, however, the important fact that the gross distinction between sound and spoiled corn is, in the opinion of many able observers, by no means always easily determined." ("Pellagra," p. 123.)

Why may not all of these theories be correct? Why not spoiled fats? Corn is rich in this substance, especially in the embryo, which is estimated to be from one-third to nearly two-thirds fat. While the cotton products are used very extensively for cooking purposes and for *feeding milk-cows*, ninety percent or more of the cattle in the cotton-section are fed on cotton products. Now, the point that appeals to me is, that these foods are made from damaged material. I have asked a number of people (some of whom operate gins, others that buy and sell cotton-seed) about the condition of the seed. The answer always came that spoiled or damaged seed was the rule and not the exception. At the gin they are likely to be thrown in one pile, where they soon will "heat." Or they may be loaded in a car, where they will probably go through the same process before reaching the oil-mill. Could this change the seed enough to cause the trouble?

Here is the report of a case that may be of interest: Patient, a negress, about 40 years old; mother of several children; had "always been healthy." I saw her first on June 20. She had walked about two miles to see a doctor, about a week before. He told her she had pellagra and gave her medicine. She went home and to bed, then

called me, saying she wanted someone to see her every day.

I found the patient's temperature normal, pulse about 100. Constipated, bowels had not moved for several days. Mouth sore; the typical dry dermatitis in spots on the back of hands and on wrists. A peculiar indefinite condition that she described as taking her by "spells" and "running all over" her. Sore throat, also "piles," bothered her at times for several weeks. Later on she was also bothered with mucus "coming up" in the throat. At times she would nearly choke, when she would get relief by vomiting.

I cleaned her out with compound cathartic pills and magnesium sulphate. Left a solution of the sulphocarbolates. Ordered frequent bathing with epsom salt and carbolic acid dissolved in warm water. At times I added the sulphocarbolates and bismuth subsalicylate. This was when her bowels were moving too freely. Used epsom salt freely. Used various mouth-washes, but with little or no effect. Belladonna had little effect on the ptyalism. Used calcium creosote instead of the sulphocarbolates at times—this for psychic effect. [We find calcium creosote mentioned in "Riedel's Berichte," but nature not described.—Ed.] She appeared to improve for about four weeks. Sat up some.

On July 20, one month from the time I first saw her, she had a chill, and her temperature was 103° F. This was the first time I had found her with fever. Bowels moved often, showed traces of blood, but were not very offensive. Mouth very bad. Dermatitis spreading and had assumed the "wet" type. Gave her calomel, followed by epsom salt. Gave two tablets of echinacea together with the calcium creosote every two hours. Also gave Fowler's solution (which she had been taking at intervals) three times daily for about a week; then gave chromium sulphate four times daily.

About this time someone told her to take sulphur three times daily. I cannot say how often or how consistently she did this. She had improved quite a good deal before telling me. I knew she was using sulphur, at times, for her mouth. All symptoms disappeared rapidly. Hands almost well at this writing (Aug. 14, 1911). A few days ago I put her on calcium sulphide, echinacea, and chromium sulphate, four times daily.

Corn and cotton products were prohibited, but I permit her to eat almost anything else.

H. D. Kemper.

Morrow, Ga.

TENNESSEE PELLAGRA COMMISSION REPORTS

Sometime ago, a commission, consisting of Drs. Krauss, Rhea, and Brooks, was appointed to investigate the pellagra situation in the state of Tennessee. This commission has just submitted its report to the state board of health. It has visited 64 out of the 96 counties of the state and found pellagra present in 58 counties. A large number of cases was investigated. The conclusions of the commission are epitomized as follows:

1. The data gathered in the field show that first cases, as a rule, spring up in the most remote places. While some of these have been imported from other states, quite as many give no history of exposure to any person or place infected with pellagra.
2. The disease has appeared rather simultaneously at widely different points—not in any way related to each other, either as to avenue of infection or as to similarity of local conditions.
3. The epidemic of pellagra in the United States has appeared in disregard of all laws of epidemiology. There has been no route of travel or sequence of development characteristic of infectious diseases.
4. While first cases may appear in disregard of any system of regularity, a large number of cases have apparently become foci for the development of secondary cases.
5. Such secondary appearance fails to sustain either view of the etiology of the disease to the exclusion of the other. Such exposed persons may partake of the infected or poisonous food, contract the disease through the bite of an insect or may become contaminated in some other way.
6. In some counties there is as yet no evidence of secondary cases, for in one instance the first case appeared seven years ago and this patient is now living on the bank of a stream.
7. Approximately 95 percent of cases admit the use of corn meal in some form, and while many are tempted to mislead, there seem to be authentic cases of abstention from corn in all its forms. No case is reported of the complete absence of corn meal from the premises for a term of years.
8. The prodromal stage, or period of incubation, seems to vary greatly, but is apparently quite long. The development of the disease appears in all cases to be gradual. While diagnostic symptoms may

appear spontaneously, they must follow a progressive disease of the spinal cord.

9. A large proportion of cases appear in the wake or in the course of some other disease.

10. While this is a disease of poverty and bad hygiene, many cases have appeared in well-to-do families with good hygienic surroundings.

11. Arsenic, especially the arylarsonates, appears to have a specific curative effect when begun early and persisted in.

12. Failure to seek medical relief and especially the persistence in bad hygiene and food usually results in death or insanity sooner or later.

13. The amelioration or disappearance of symptoms in cold weather suggests a strong climatic influence upon the course of the disease.

14. Pellagra appears to be a gradually developing, cumulative intoxication of the central nervous system, of indefinite prodromal stage, of seasonal periodicity, the symptoms of which may appear suddenly during the spring, summer or early autumn.

15. There is no proof of its immediate transmission from person to person, though it may be a house infection.

16. Its phenomena can be explained on grounds other than infectiousness, and they appear to favor the hypothesis of food transmission. The theory of insect transmission does not fit the early isolated cases so frequently found.

17. It is possible that food-cereals, and especially corn meal, serve as vehicles of transmission, and that the infection exists in granaries and elevators, and that the obstacles to its transmission in this way are great enough to account for the relatively few cases of the disease.

18. It is imperative that the public be instructed in hygienic living with special reference to house screening, sanitary privies, properly cooked wholesome food—eaten as soon as prepared—and that medical advice be sought on the appearance of the earliest suspicious symptoms.

19. We need institutions for the care of these pellagrins.

PELLAGRA IN KENTUCKY

At the request of the state board of health of Kentucky, the United States Public Health and Marine Hospital service has conducted an investigation of three counties of Kentucky. One hundred and forty cases were investigated. The report concludes as follows:

Practically every case occurred in families in poor economic circumstances and living under rather unhygienic conditions. Many of them were in families of coal miners. On account of the topography of the country. the most suitable locations for homes are along the streams, consequently a large percentage of the inhabitants live along water courses. In every instance where I was able to visit the pellagrins at their homes I found them living within 500 or 600 yards from a stream. The question of diet was not gone into thoroughly, but in every instance where I was able to make inquiry regarding the diet of the pellagrin, it was learned that corn products had been one of the main articles of diet. In fact, corn products are used extensively by nearly all of the people in this section.

I was able to find only sixteen pellagrins who were then living at the homes at which they were living when they first noted the symptoms of the disease. Upon inquiry as to the water supply in these instances, it was found, with only one exception, to be either surface water from branches or creeks or water taken directly from neighboring mountain springs.

Regarding the race, sex and age of the pellagrins in this series, I have constructed the following table from the data pertaining to these points: White females, 104; white males, 28; colored females 7; colored males, 1; total, 140.

ETIOLOGY OF PELLAGRA

In *The New Orleans Medical Journal* of September, 1911, Dr. Thorington presents evidence to combat the theory that pellagra is due to eating moldy corn. He believes that the disease is really transmitted by the bite of the mosquito. In support of the parasitic origin of the disease he submits the following facts:

First, it appears to be infectious. Dr. J. M. King, of Nashville, Tennessee, reports eleven cases occurring in an institute of charity at Nashville as the result of one case having been brought there.

Second, the clinical course of the disease closely conforms to that of other parasitic diseases, and not of that caused by grain poisoning.

Third, there is a periodicity about the development of pellagra, the spring causing it to become active after having passed a stage of latency during the cold weather.

Fourth, its geographical distribution—tropical and subtropical—is that of other diseases of parasitic origin.

A GALACTENZYME BABY

I am sending you a photograph of a child which might well be called a "galactenzyme baby."

When I was first called to see her she was the most hopeless bit of humanity one could imagine. She was a year old and weighed *seven pounds!* Looked like a piece of dry parchment stretched over bones, with two large appealing eyes giving out a haunted look. She had been fed on nearly every kind of prepared food—certified milk, milk-commission milk, etc. Everything was vomited with "dispatch," if not with "neatness."

Several physicians had prescribed for her, with no apparent good results, and my

own treatment at first was no better. She simply did not retain or digest anything. It looked as if every hour would be her last.

It then occurred to me to try galactenzyme—which I did by putting one tablet (crushed) in a pint of fresh bottled milk and letting it stand a day. The first feeding was retained. All vomiting stopped within two days, and the way that baby began to grow and take on fat beat anything I have seen in a long time.

Dr. Clark's "Galactenzyme Baby"

As soon as she began to pick up I had the family give her half a tablet, crushed, in water, after each feeding. Giving the tablet after each feeding seemed to give just as good or better results as putting the tablets in the milk and letting it stand a day. You ought to see her father smile as he calls for fresh stock (a bottle of 100) as he does regularly as needed. The child now eats everything suitable going, but they want the tablets in the house.

This picture was taken some months after beginning this treatment. I only wish I had taken one when I first saw her. But I didn't, so similar mental pictures, hanging in the mental galleries of the profession, must suffice.

Since this experience and during all last summer, I have given this same treatment to all children suffering from indigestion and malassimilation with better results than I have ever had before. It is exceedingly rare to find a child who cannot digest pure cow's milk, not sterilized and not pasteurized (but properly diluted for age, of course), if galactenzyme is given as I have suggested. Be sure to use enough—too much is impossible.

Incidentally, I want to say that adults who cannot take milk with their meals, because of intestinal indigestion, will have no trouble from gas ("bloating") if they take two or four tablets of galactenzyme after eating. It is my sincere belief that all physicians, especially those treating children's diseases, should become acquainted with galactenzyme.

J. A. Clark.

Chicago, Ill.

GUAIACOL INUNCTIONS IN PNEUMONIA

In The American Journal of Clinical Medicine for April, Dr. Wolverton reports two hundred cases of lobar and bronchial-pneumonia treated by him, with the loss of but six patients. A fine showing, certainly, and proving that the treatment employed was not of the do-nothing sort, but active and efficient. Speaking of the local measures used, the doctor says that since he has begun the use of guaiacol inunctions (equal parts of camphorated olive oil and guaiacol) he has not lost a case of lobar or bronchial pneumonia. He applies the mixture to the entire chest every two to four hours, profuse diaphoresis with fall of temperature taking place in a short time after inunction.

Following Dr. Wolverton's advice, I wish to report an experience in a case of bronchopneumonia. I was called, April 30, to see Mrs. G., aged 56, who for the past three weeks had been suffering from a severe cold and bronchitis, which had failed to yield to home remedies, but gradually grew worse, when it was decided to call a physician.

I arrived about 11 a. m. Found temperature 102° F., which increased as evening

came on; pulse 100; respiration 30; a distressing cough, dry and harsh; coated tongue; insomnia; patient in an irritable and highly nervous state; physical signs pointing to bronchopneumonia. I prescribed an initial "clean-out" with calomel and podophyllin, followed by saline laxative, dosimetric trinity, later changing to the defervescent compound for fever, and giving codeine, emetin, and calcidin for cough.

I saw the patient again on May 2. Condition improved; cough loose; expectoration tough; mucous flecked, with blood at times. Improvement was slow but steady, until Sunday, May 7. Up to this time no local treatment had been used. The temperature on the date mentioned was 100° F. at 12, noon; large and small moist râles all over lungs, breathing rough and bronchial.

I now concluded to use the guaiacol inunction as recommended by Dr. Wolverton, so applied the oil to the entire chest and watched the result. In a few minutes the patient was in profuse diaphoresis. At 2 p. m. the temperature was 99° F. and the patient comfortable. I then left, but directed that, if the temperature rose and the skin became hot and dry, the inunction should be repeated at 6 p. m. At 5 p. m. I was told by 'phone that the patient had had a hard chill, and that she continued to cool off until rigor set in. Saw the patient next morning. She was fairly comfortable, apparently having suffered no ill effects from her experience of the previous day. At present writing she is running a slight temperature, which is gradually declining and convalescence seems to be well established.

Now, is this the invariable result of the guaiacol inunction? If so, given at intervals of two to four hours, the patient would be kept in a constant rigor. What was the trouble in the case above described? What are the limitations in the use of the guaiacol inunctions in pneumonia? The measure seems to be potent for good or harm. Tell us, please, when and how to use it.

Further, in *Ellingwood's Therapeutist* for April, Dr. A. S. Thompson reports a case of pneumonia aborted in a child 14 years old, in which, after the initial calomel clean-out, the defervescent compound and dosimetric trinity, with calcidin for cough, were the dominant remedies, Dr. Ellingwood, commenting on the treatment in this case, says, There is no need whatever for a physic in these cases." Again, he says, "Digitalis was certainly not called for on the first day, and it may retard the influence of veratrine when that remedy is demanded." From which, it would appear that he objects to the digitalin in the defervescent compound as incompatible with the veratrine. Is such the case? Does the digitalin in the defervescent compound retard the influence of the veratrine? Is it best in these cases to give aconitine and veratrine together, omitting the digitalin, to secure defervescence?

Dr. Ellingwood says, further: "It is usually best to continue the aconite, and wait until the temperature is at least 100 degrees, before giving strychnine." This in criticism of the statement that when the temperature declined to 102.5° the defervescent compound was replaced by the dosimetric trinity. In the doctor's opinion, therefore, the strychnine in the triad combination is not compatible with the best interests of the patient in these cases. Is it so? Is the strychnine in the one and the digitalin in the other incompatible in these combinations with the other elements, rendering the preparations undesirable in pulmonary diseases?

J. Luther Sheppe.

Mt. Sidney, Va.

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[For a discussion of the action of guaiacol we refer the reader to the article by Dr. Roberts on page 1172, this issue, and the editorial comment thereon. The peculiar fact that guaiacol, when applied to the skin, acts as an antipyretic, has been referred to frequently in Clinical Medicine. The objection to this method of using the drug is exactly that to which Dr. Sheppe refers: it frequently produces severe and possibly even dangerous chills—though these are not an invariable sequence, and if Dr. Wolverton's experience is a safe guide even these symptoms are not greatly to be

dreaded, since he lost no cases of pneumonia when the drug was used. However that may be, it is the part of wisdom to make small, well-diluted applications at first, and gradually increase the quantity of the drug, if indicated. In the asthenic cases, or in the very young or aged, we should not advise the local use of guaiacol.

We must take exception to our good friend Ellingwood's advice anent the "clean out" in pneumonia. In our opinion it is imperatively needed in these cases. Certainly a clean intestinal tract is just as important as a clean, frequently bathed skin, and if you didn't provide for that you and the good nurse would have a falling out. We want to limit the absorption of putrefactive poisons from the bowel, which may add so much to the severity of the disease; and we want to prevent the formation of gas, which is an important mechanical factor; and, finally, we want to drain the blood away from the congested lung. All these things catharsis helps us to accomplish.

There may be cases of pneumonia where digitalin is not indicated. For instance, we do not always give it to children, in whom the cardiac resistance is generally good. But as a rule clinical experience has shown that the remedy *does* help, and that substantially. We want the cardiac tone which this drug can give, and we need it practically from the beginning; we do not want the arterial contraction of digitalis, with consequent rise of blood pressure, and this the combination with aconitine or veratrine obviates, bringing about a nicely balanced vascular equilibrium.

We certainly should not give veratrine and aconitine together *without* the digitalin, which is needed to steady the heart. The strychnine is indicated in the asthenic cases or when nervous or cardiac tone is beginning to flag later in the disease.

To epitomize: In sthenic cases, where the pulse is full and bounding, give the defervescent combination of aconitine, digitalin and veratrine. In the asthenic cases or in stages of weakness, change to the "trinity" consisting of aconitine, digitalin and strychnine arsenate. How beautifully these two combinations act was shown by the experience of Dr. Wolverton, just quoted, who, using this method, lost only one case of lobar pneumonia out of 141 which he treated.

Of course other indicated remedies should be employed, including the "clean out," the intestinal antiseptics, and proper local applications. Don't forget bryonin and calx iodata!

Hundreds, yes, thousands of physicians can testify to the merits of this method. We hardly need defend it—we can leave that to the "family". Only last week a doctor dropped in to see us and said: "I just love to get hold of a case of pneumonia *now*. It doesn't worry me a bit, for I *know* that if I see the case reasonably early my patient is going to get well." He uses the "alkaloidal" method.—Ed.]

CAN PNEUMONIA BE CUT SHORT?

Now we come to an old battle-ground—with the fight still on. To those of us—and their number is not few—who maintain that pneumonia can frequently be aborted and cite case after case to prove our assertion, the eminent scientist has but one answer, an answer stereotyped and always ready. I have heard it hundreds of times. It is always the same. It is effective, and withal a trifle dogmatic, I will not say, discourteous. *Error in diagnosis.* Now will you be good? We are very promptly put where we properly belong, in that large class of well-meaning but wholly incompetent individuals.

How can we argue the matter? We have absolutely no ground left to stand on. We are ruled out of court. Postmortem records show no abortive cases. We are not allowed to assassinate a few choice cases for purposes of demonstration. So there we are undeniably in the front row of the utterly incompetent. What business, anyway, have we poor, benighted, half-educated, misguided, deluded and wholly mistaken individuals actually to argue with an established authority, one who has risen by sheer force of intellect above all human fallibility?

Doubtless we misguided people actually believe that we aborted that pneumonia;

nay, worse, that we actually had a case of pneumonia to start with when it was obviously only a case of congestion. Mere hallucination of the untrained mind! Not to be taken too seriously. We should be properly snubbed, and let our betters, who have *heard* about our methods of treatment but have not been so unwise as to try them, pass final judgment.

It only remains modestly to suggest—indirectly, of course—that so long as the mortality of pneumonia under orthodox treatment remains at the usual 20 to 30 percent, the subject is not one for further discussion. It is more polite and tactful for the said misguided individuals to change the subject. Even a high authority is sometimes sensitive. Don't harrow up his feelings by referring to his own 30 percent mortality. True, he has just made you feel like thirty cents, but let it pass. You've only gotten what is coming to you. If theory does not accord with the facts, calmly push the facts aside. This is the privilege (sometimes) of the truly great. Error in diagnosis, like the policeman's billy, is always handy, and a great silencer.

But, after all, denial is not argument, and to call the other fellow an ass or a fool, or its more euphemistic equivalent, incapable of diagnosis of one of our most common maladies, is an old, old way of controverting your opponent, but it fails with some of us to put at rest an important question.—W. N. MacArtney in *The Medical Council*, August, 1911.

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[All of which we support, supplement and further emphasize by a fervent "Amen, Brother!"—Ed.]

BLINDNESS FOLLOWING THE USE OF THYMOL.

A boy of six, in this vicinity, took the regular thymol treatment for hookworm in May, 1911. Within six or eight days after taking treatment the boy became cross-eyed, and at the end of four weeks he was entirely blind. His health was good before this time, except that he was a little pale. He is quite well now. The attending physician also administered the thymol to the boy's sister who suffered no inconvenience whatever, following its use.

There were no restrictions regarding the diet while the patients were being treated. Now the question is, did the medicine cause the blindness?

H. T. Pope.

Dumberton, N. C.

[It would not be safe to say that the thymol was the cause of the blindness, since we are unable, at this distance, to exclude other possible causes. But the case is certainly a very suspicious one. Thymol is a toxic substance—especially when it is given in the large doses recommended for the removal of the hookworm. It is also significant that no precautions were taken in the diet of this boy. It is one of the imperative rules, which must not, *can* not be violated with safety, that no oils or fats shall be taken by the patient who is undergoing this treatment, not even butter on bread, or castor oil to purge, since the oils are ready solvents of this substance and increase its toxicity. The same precaution must be insisted on with regard to alcohol, which can not be taken safely during thymol medication.

On the other hand, we have been unable to find any report of cases of blindness due to thymol. The substance is irritant to the kidneys, and it is reasonable to believe that it might deleteriously influence terminal vessels elsewhere. The usual symptoms of thymol poisoning are heart weakness, cyanosis, dizziness, fainting and unconsciousness. Dock and Bass ("Hookworm Disease," pages 216–217) say they have never seen more than a slight dizziness, and while they have heard of alarming symptoms they personally know of no fatal cases.

Thymol is plainly, however, a remedy to be employed very carefully.—Ed.]

RULES FOR RIGHT LIVING

Norman Selby, otherwise known as Kid McCoy the prize-fighter, who has been studying physical culture for a number of months, says that since February he has gained 25 pounds in weight, added four inches to his chest measurement, reduced

his waist eight inches, and, most remarkable of all, grown an inch and a quarter in height. His method is embodied in the following ten "health commandments":

1. Thou shalt keep thy backbone straight.
2. Thou shalt use all thy lungs all the time.
3. Thou shalt drink half a gallon of water daily.
4. Thou shalt take sufficient nourishment.
5. Thou shalt masticate thy food properly.
6. Thou shalt sleep eight hours daily.
7. Thou shalt cleanse the body daily.
8. Thou shalt walk three miles daily.
9. Thou shalt think pleasant thoughts and banish unpleasant ones.
10. Thou shalt praise the Creator for the result these laws bring, and tell thy neighbor.

A NEW TYPHOID-FEVER TEST

We desire to verify a new typhoid-fever test which has been proposed in the last few years for the early diagnosis of the disease, and should like to receive a few specimens of urine from cases suspected of typhoid fever, for our investigation. Needless to say that such examinations will be made free of charge, provided the sample of urine is labeled: "For typhoid-fever test."

COPPER SALTS AND IPECACUANHA IN THE TREATMENT OF AMEBIC COLITIS

In *Merck's Archives* for July, 1911, Dr. J. A. Storck of New Orleans, reports his results in a series of 45 cases of amebic colitis which are not only interesting but highly instructive. He says that of all the numerous remedies suggested for the treatment of this difficult condition, ipecacuanha, calomel and magnesium sulphate are the best and most favorable ones for internal use, and that a great many preparations, from quinine sulphate to the silver salts, have been recommended for colonic irrigation and instillation. For his part he has found a combination of the internal administration of ipecacuanha and copper arsenite, along with hot instillations of copper sulphate, to give the best results.

In some cases the administration of ipecacuanha in the form of pills coated with shellac, keratin, or salol, had to be abandoned because of the occurrence of disagreeable results, and these cases, if the patients were put upon copper arsenite by mouth and hot instillations of copper sulphate, showed good results.

The 45 cases reported are taken from hospital and private practice, and 24 of them were treated with the ipecacuanha alone. Nine received ipecacuanha and copper arsenite internally and hot instillations of copper sulphate by bowel, while twelve

Dr. M. W. Phillips, Chapman Quarries, Pa.

were treated with copper arsenite alone internally and hot instillations of copper sulphate by bowel. All the cases were given at 5 o'clock every morning for from five to ten days, 30 Cc. of a saturated solution of magnesium sulphate, in order to remove from the mucous membranes as many as possible of the ameba and clear out all digestive residue.

In the 24 cases treated by ipecacuanha, the initial dose given at 8 p. m. ranged from 40 to 80 grains in salol-coated pills. The total quantity given ranged from 200 grains minimal dose to 630 grains, maximal dose, in a given case, according to the toleration and results produced. Strange to say, the smaller doses gave as good results as the larger amounts, that is, apparently caused the disappearance of the entameba h., and

the patients taking the smaller amounts did not show a greater number of relapses, indicated by a reappearance of the entameba h., than those taking the larger amounts. Nevertheless, the author preferred to give a large initial dose and a greater total quantity. The dose was reduced five grains every night, until on examination the stools showed freedom from the entemeba h., when the dose was continued for several days.

Of the first series of 24 cases, 6 relapsed. The entameba h. reappeared in the stools after an apparent absence of from two to six weeks. In 12 of the cases, where no entameba h. could be found during this period, three had occasionally mucoid stools, one of them continuing to show traces of blood. Assuming that the other six cases, of which trace was lost, did not have a recurrence, and eliminating the three cases with mucoid stools, there is a proportion of true relapses of 25 percent.

Four of the six cases of this series which relapsed were prevailed upon to submit to the copper treatment, and with one exception there was complete cessation of all bowel symptoms in the course of twelve days. These cases have remained free from entameba h. up to the time of writing, four months since their disappearance.

The author emphasizes as his experience that under the administration of ipecacuanha the number of stools is lessened and they become formed, but the entameba h. are not eradicated in all cases. They may, in fact, develop an ipecacuanha resistance.

The second series comprises nine cases which were treated with ipecacuanha as in Series I and in addition during the daytime with 1-100 grain of copper arsenite every hour until six or eight doses were administered and thereafter every four or five hours as long as the ipecacuanha was given.

Morning and evening (every twelve hours) during the above period, high instillations of hot 106° to 110° F.) solution of copper sulphate were administered. Entameba h., also mucus and blood, disappeared from the stools in all of these cases in from six to twenty days. Of these six cases were under observation for more than two months, there was no recurrence of entemeba h. and only one relapse of mucoid stools, a percentage of 11 percent.

In the third series, 13 cases were treated, including three in which untoward effects had occurred from the first dose of ipecacuanha, four which relapsed after full treatment with this drug, and six which had received previous treatment without cure resulting before coming under Dr. Storck's charge. These cases were each given magnesium sulphate as in the other two series, copper arsenite internally and hot instillations of copper sulphate were given as in Series II. The time required to eradicate the entameba h. and to free the stools from mucus varied from five to twenty-five days, that is, a slightly longer time than in Series II. In eleven of the cases in which the prescribed treatment was faithfully carried out, none relapsed for from six to ten weeks. The other two disappeared before the occurrence or non-occurrence of relapse could be ascertained. If they are classed as having relapsed, Series III gives a percentage of 15 1-2 of relapses.

All the patients were put to bed on beginning treatment, and whenever possible were induced to remain in bed until the entameba h. had disappeared from the stools.

We have thus: Series I, ipecacuanha treatment, 24 cases, relapses 25 percent.

Series III. Thirteen cases, copper arsenite internally, hot instillations of copper sulphate, two questionable relapses, 15 1-2 percent.

The author's method of applying the hot instillations of copper sulphate is that suggested by Moulden, and is as follows:

The patient is placed upon an inclined plane that raises the buttocks twenty-five centimeters above the level of the shoulders, thus allowing for the complete distension of the entire colon, especially at the cecum where the entamebas are usually present in large numbers. By taking advantage of the fact that, as the majority of the weight of the solution is thus kept internal to the sigmoid flexure, a maximum distension of the entire colon is produced, while a minimum amount of pressure is brought to bear upon the rectum and its sensitive nervous mechanism, the colon is thoroughly

irrigated through a double-flow colon tube, with sterile water until the return is perfectly clean. After draining off all the surplus water, the bowel is slowly filled with the hot copper solution by starting the reservoir on a level with the anus, and slowly elevating it as the gut accommodates itself to the pressure, thus distending it to its fullest capacity without contraction of the muscular walls. The temperature at which the instillations prove the most efficacious is from 106° to 110° F., the higher

Dr. L. L. McKinney and family, Burnsville, W. Va.

temperature being used as a rule in the worst cases. This temperature seldom causes annoyance, but on the contrary, acts as a sedative to the mucous membrane, improves the penetrative power of the copper, and brings about reaction. The patient usually retains the solution for twenty or thirty minutes. This procedure is repeated every twelve hours, and has been found to work well in practice, as it does not needlessly exhaust the patient. Under the copper treatment, patients gain rapidly in weight, possibly due to some tonic action resulting from the absorption of the copper. Profuse perspiration frequently occurs, but no unfavorable results follow.

The strength of the solution used by the author on the cases reported was from 1:10,000 to 1:6000.

This report of Dr. Storck is exceedingly interesting, not only because it shows the relative efficacy of the ipecacuanha treatment in amebic colitis, but still more in proving the superior value of large doses of copper arsenite internally. As to the advisability of employing colon flushings with copper-sulphate solution there can be no doubt, and the addition of the magnesium sulphate also does not require any support. If we were to suggest an improvement over Dr. Storck's method we would say that the unfavorable symptoms which he observed occasionally under the use of large doses of ipecacuanha could probably have been obviated by the administration of corresponding doses of emetin, which, containing emetine and cephaeline, combines the active principles of ipecacuanha. It need not be given in such massive doses as does the crude drug in order to obtain the same ipecac effect.

WELL SATISFIED

There are other good medical journals besides your—our—journal, but, with me, none of them, not even the very best of them, so nearly approaches the ideal as does CLINICAL MEDICINE.

When it reaches my desk I feel as if I have been cheated if for any reason I am forced to lay it aside before finishing it from cover to cover.

I was regarded with suspicion by many of the physicians with whom I am thrown when I began to use the active-principle idea in my practice, but I am quite sure that a goodly and growing number of them now agree with me that the alkaloidal idea works out satisfactorily in daily practice. There is more science and less "guesswork", more satisfaction and less disappointment when a pathological condition is met with a remedy of known physiological action than can be hoped for when the enemy is met with a blunderbus loaded with good, bad or indifferent ammunition. If the practice of medicine ever reaches a stage where it can be called an exact science it will be along the lines you have so courageously and persistently fought for. W. C. BRYANT.

Camp Yonah, Ga.

[Therefore, we purpose to keep right on fighting, with the help of our thousands of friends. Can't we, among us, slip an increasing number of copies of CLINICAL MEDICINE over into the camp of "the other side"?—ED.]

CICUTINE IN SENILE DEMEMTIA AND CANCER

Excepting my experience, I am unable to find any authority for the use of cicutine hydrobromide in senile dementia with delusions, but Potter mentions its use in combination with morphine, in acute mania.

I found this drug also to mitigate, in a measure, the pains of intestinal cancer; so much so that I seldom was called upon to use hyoscine and morphine.

I will say that I treat rheumatism as an autointoxication. It is a difficult matter to practise high saline colonic flushings on an office patient.

HORACE R. POWELL.

Poughkeepsie, N. Y.

WHAT IS THE MATTER WITH THE PROFESSION?

Only that we are evolving out of the past toward the future. I, for one, do not see any real progress in the editor's scheme of a "doctor limiting himself to take care of 500 persons, each of whom pays him a stated sum monthly." I believe any such plan is impracticable.

This scheme of hiring doctors by salary is now being tried out in Germany, in the "krankenkassen" companies, and it does not work satisfactorily, either to the physician or the public. The Leipsic League, in a circular issued last year, showed up the unsatisfactory condition into which it has brought, and is bringing, the medical profession in Germany. Physicians over there are crowded in the cities far worse than here, and starving, while quackery is flourishing everywhere. In many cities of Germany there are as many irregular practitioners as there are regulars. In the country districts the mothers are dying from puerperal sepsis for want of medical attendance.

In 1906, Prussia had a mortality from this preventable disease of 3722—twice the mortality per million inhabitants that we have in Minnesota! (*Journal of the American Medical Association*, Dec. 12, 1908, p. 2070). The profession in Austria and France and in the other European countries is in the same fix—overcrowded in the cities, while the country districts are without adequate medical service.

Well, what is the trouble, then? *An impracticable medical educational program!*

Dr. John B. Murphy called attention to this matter in his presidential address at Los Angeles (*Journal of the American Medical Association*, July 1, 1911). Dr. Murphy is the first man of prominence that has had courage enough to put his finger on the sore spot of the dry-rot in medicine. Listen!

"In order to meet the educational requirement for matriculation in the modern medical school, the young man is forced to keep his face in the folds of books from his infancy. He has had no opportunity to think, he has not been taught to think; he is a book-stuffed, machine-made, nonthinking automaton, albeit a fit and acceptable applicant according to present requirements, from which a medical school is *supposed* to make a thinking medical man. What marvelous powers a medical school must possess! How is it possible? What changes should be instituted in the evolution of the medical embryo?"

Of course, when we think about it, we all know that Dr. Murphy has hit the nail on the head. Our medical curriculums today in our best schools are training men to be professors, original investigators or special technicians in a hospital, but not to be general practitioners. These high-grade graduates know all about the abstract sciences, have the university method and the hospital technic at their fingers' ends—but as for relieving Johnnie of his choke-cherry colic, they're helpless, or as for doing a major obstetrical operation at a farm house, without trained nurses and assistants—why, they know it "can't be done."

Dr. Murphy says the profession is not overcrowded. Of course, not, except in the mind of some ultrascientific university professor. He says what the *patient* needs is relief of his symptoms, and if physicians

would attempt to provide this, every doctor in this great land would be overworked. Here, you therapeutic nihilists, put that in your pipes and smoke it!

If our medical faculties would bend their energies to devise a proper medical curriculum, preliminary and medical, which would make practical physicians who could and would help ordinary people in times of disease and suffering, instead of as at present, trying to make "scientists," then the main troubles of the medical profession —professional and economic—would be solved.

Space forbids me enlarging on this subject. But Dr. Murphy has opened the path in the right direction, and now the rank and file must follow.

CHRISTIAN JOHNSON.

Willmor, Minn.

A STUDY OF PELLAGRA

Dr. A. L. Nason, of Maben, Mississippi, who is making a careful study of the stools in cases of pellagra, believes that there is a close association between this disease and the hookworm disease. He would like to get in touch with physicians who are treating cases of pellagra, in order to secure specimens for examination. We urge any of our friends who are interested in this subject to correspond with him.

FRACASTOR'S "SYPHILIS"*

Several years ago the writer of this review, while attending an auction sale of old books, became a bidder on a beautiful, vellum-bound volume, one of the earlier editions of Fracastor's poem, "Syphilis." At that time he knew little about the book or its author, and it went to a more discriminating booklover, who secured it for the ridiculous sum of $2.35.

Yet the loss had one good effect: it intensified his interest in one of the most important periods in human history, the Italian renaissance, and particularly in one of its most striking figures, Girolamo (or Hieronymus) Fracastor, who in his day was the leading physician in Italy, as well as a writer of polished Latin verse. Yet it was neither Fracastor's skill as a physician, nor the beauty of his literary style that made him illustrious; it was the fact that in his poem he gave the now well-known venereal disease the two names by which it is best known, namely, "syphilis" and "lues."

Fracastor was born in Verona, in 1483, and died of apoplexy at his villa of Incaffi, near Verona, in 1553. At nineteen he received his academic degree from the university at Padua, and became professor of logic in this great school, later taking up the study of medicine, in which he was to attain the first eminence. From about the year 1507 to 1509 he was under the patronage of the celebrated commander Bartolommeo D'Alviani, and gave lectures at the academy founded by this nobleman at Pordonone. At the battle of Ghiaradadda his patron was wounded and captured by the French, after which Fracastor returned to his native city, and, in his villa close by, devoted himself to scientific and literary pursuits. This remained his home (except for short intervals) until his death.

It will be seen that the life of Fracastor included one of the most brilliant periods in Italian history. It embraced the pontificates of the notorious Alexander VI (the Borgia), Julius II, greatest papal patron of the arts, Leo X, the first Medici pope, known as "the Magnificent," Clement VII, also of the house of Medici, and Paul III, the great codifier of catholic doctrine. During the life of Fracastor America was discovered, printing from movable type was invented, and the stiff-necked Augustinian friar Martin Luther initiated the great protestant reformation. During this time Italian art and literature attained their finest flowering. He was of the generation of Michael Angelo, of da Vinci, Correggio, Titian, and Raphael. Dante and Petrarch had long since passed off the stage, but Machiavelli wrote "The Prince" and Ariosto his "Orlando Furioso" during Fracastor's life. Many of these distinguished men were his acquaintances, and some of them his intimates. He was considered the finest Latin poet of his time, disputing that

*Hieronymus Fracastor's "Syphilis." A Prose Translation from the original Latin. Octavo. Price $2 ( ). Published by the Philmar Company, St. Louis, Mo.

title only with the great Politian. "Syphilis" was his masterpiece.

The theme of this book was the *morbus gallicus*, or "French Disease," as it was generally called. The first great epidemic of this disease followed in the wake of the armies of Charles VIII of France, which overran Italy in 1494–95. The pestilence passed from one part of the country to another like wild-fire, carrying off thousands. From this country it spread all over Europe. All classes of people were affected —popes and peasants, soldiers and tradesmen, great ladies of the court and the common women of the street. When this poem was begun syphilis had been present in Italy for only about twenty years, so that the author had had opportunity to study it thoroughly, from the very beginning.

The source of this disease, whether or not if had been brought back from the New World, its nature, how it was disseminated, and methods of treatment, were all lively subjects for controversy among the writers of the time. Thus early, no one seems to have suspected its venereal character.

It was this problem, the nature and cure of syphilis, which was the topic for discussion in Fracastor's poem. He chose the poetic form to convey his message. As Fracastor says at the beginning of the poem, using the beautiful translation of this edition:

> I sing of that terrible disease, unknown to past centuries, which attacked all Europe in one day, and spread itself over a part of Africa and of Asia. I will tell what concourse of influences, what occult germs have caused it, how it arose in Latium at the time that the French armies rendered desolate that unhappy country, what reason caused it to be called the French disease.

The poem takes its name from a legendary character mentioned in the third book, Syphilus, a shepherd who watched the flocks of King Alcithous. A torrid heat burned the earth, the forests had no shade, the fields dried up and his animals perished. Becoming impatient with Apollo because his prayers for relief were not answered, Syphilus impiously neglected the worship of the god and raised an altar to his king, to whom he rendered divine honors. The god in his anger charged the sun's rays with "pestilential poisons and virulent miasms," and "at once upon this criminal earth there arises an unknown plague." Syphilus was the first to be attacked. "A hideous leprosy covers his body; fearful pains torture his limbs and banish sleep from his eyes." How he is restored to health is told in poetic language.

The poem contains a minute description of the etiology of the disease, as seen by Fracastor, a discussion of its symptoms, together with poetically conceived legends of the discovery of the two most popular remedies, mercury and guaiac.

Fracastor believed that syphilis was caused by a miasm, a subtle poison which "spreads itself in the ether and disseminates its pernicious effluvia through the immensity of space." The origin of the miasm was found in the influence of the sun and stars upon the atmosphere or "ether."

The treatment advised by Fracastor would be considered rather appalling in these days. Internally he recommends decoctions of remedies whose names even are strangers to us now. He mentions pamhilia, fennel, smallage, fumitory, capillaria, ceterach, and hart's tongue; urges the physician to use "these favorable properties" of squills, colocynth, hellebore, olivanum, myrrh, bdellium, ammoniac, opoponax, and hermodactylum; while resinous substances of all kinds are advised, such as olibanum, the resin of cedar, aspaleth, cypress, gallinsgate, cassia, cardamom —and numerous others.

Mercury was highly extolled, but was used locally only. (It was not used internally until 1633—the first edition of this book appearing in 1630.) Concerning this substance Fracastor says:

> At the beginning mercury was employed associated with lard; later it was combined with the turpentine of Epirus and the resin of the majestic birch: . . . For my part I prefer to alloy it with a mixture of black hellebore, orris root, galbanum, asafetida, oil of mastic, and oil of native sulphur.
>
> Patients, a truce to the disgust which may be caused by this remedy! For if it is disgusting, the disease is still more so. Besides, your cure is at this price. So, without hesitation, spread this mixture on your body and cover with it your entire skin, with the exception of the head and of the precordial region. Then carefully wrap yourself in wool and tow; then get into bed, load yourself with bed covering and thus await until a sweat bathes your limbs with an impure dew. Ten days in succession renew this treatment, for ten entire days you are to undergo this cruel trial whose beneficial effect will not cause you to wait.

In another legendary story Fracastor tells of the healing power of mercury. A Syrian husbandman named Ilceus has incurred the wrath of Diana by killing her sacred deer, and has been afflicted with the disease. The friendly nymph Calirrhoe conducts him deeply into the caverns of the earth, where he finds other nymphs, who preside over the making of the precious metals. One of them, Lipara, takes him in charge and leads him by gaping gulfs, subterranean rivers, and bottomless abysms, until they reach "the sacred river whose metallic waves carry quicksilver". Ilceus is bathed three times in the liquid metal and is healed.

Equally beautiful is the story of the finding of the other great sixteenth-century remedy for syphilis, guaiac.

A Spanish flotilla, we are told, is brought by the hands of the angry Apollo "to the banks of Ophir," where the dread pestilence is loosed upon them. But the king of the country tells them of the miraculous appearance of the sacred tree guaiac, which (as already described) brought relief to the shepherd Syphilus. It was this "divine guaiac" which received the final apostrophe of the poet, and the book concludes with an elaborate laudation of its virtues.

It there were space, I should like to tell you more about Fracastor's life and of his services to medicine; of his scientific contributions; and of his attendance upon the Council of Trent, to which he was sent as attending physician by Paul III. "Syphilis" was dedicated to the Latin poet Bembo, who was secretary to Leo X and later was to become a cardinal. He had an interesting and romantic career, which was closely united to that of Fracastor.

The poem is characterized by deep thought, couched in beautiful imagery, and in a style patterned after the great Greek poets, the study of whose works was then undergoing a revival in Italy.

The thought which strikes a twentieth century physician is that a medical man should think of using poetry as a means of expressing his thoughts or promulgating his theories. Can we conceive of Sir William Osler unfolding the beauties of a case of typhoid fever in rolling hexameters? Or Paul Ehrlich telling of the discovery of salvarsan, as if he were writing a canto of Don Juan? But why not? The achievements of modern science are poems of creative imagination; and if the medical genius wishes to borrow the language of Parnassus to tell of them—why, let him!

The translation is beautifully done, preserving the imagery of the poem, while faithfully reproducing the thought.

ALFRED S. BURDICK.

Chicago, Ill.

THE PHYSICIAN'S POCKET ACCOUNT-BOOK

We have just received a brief letter from Dr. J. J. Taylor, editor of *The Medical Council*, No. 4105 Walnut St., Philadelphia, Pa., who feels that complete justice was not quite done his Physician's Pocket Account-Book, in Dr. Achard's article in our October issue. (See page 1046.)

Dr. Taylor writes that the Physician's Pocket Account-Book is not a ledger, but rather an individual day-book, so ruled and headed that accounts are carried in the names of the individuals responsible for the accounts, and entries can be made almost instantaneously. No signs or symbols are required in entering the accounts and everything is in plain, legal language.

One of the great merits of the book is that the physician can always have it with him, so that the entry may be made at the time the transaction occurs. The bookkeeping is always up to date, requiring no posting. The physician can always tell his patron upon request just how much is due and what for. Another merit is its economy. The editors of CLINICAL MEDICINE are glad to add their testimony to the value of the Physician's Pocket Account-Book.

TUBERCULOSIS TREATMENT

In the *Zeitschrift fuer Tuberkulose* for June, 1911, Doctors S. Bernheim and L. Dieupart, both prominent leaders of the antituberculosis movement in Paris, France, communicate their experiences with diora-

din, which is radioactive iodomenthol, a preparation introduced into practice by Dr. Szendeffy of Budapest. After three years of investigation, with satisfactory results, Dr. Szendeffy requested the Paris physicians to test the remedy which he had elaborated, and they used it in a considerable number of cases in their tuberculosis dispensaries.

The composition of dioradin is as follows: Peptonized iodine, 0.75 Cc.; menthol, 0.06 Cc.; radium-barium chloride in ethereal solution, 1-10 drop. This is put up in an oily vehicle, and supplied in sterile ampules. The dose is from 1-2 to 1 Cc. every day for ten days; then every other day until forty injections have been made. After an interval of one or two weeks another series of 40 injections follows, which may be supplemented by a third or fourth series.

The authors have made series of thirty consecutive daily injections, without any harm. Dr. Szendeffy from the first warned against using his remedy in patients whose kidneys or hearts were in bad condition.

The authors find that under the use of dioradin the fever diminishes, the temperature becoming normal in the course of a few weeks. The appetite shows visible improvement after from six to ten injections. In the course of the treatment the weight increases, night sweats and cough diminish, and the patient, owing to better rest, feels stronger. The bacilli are found to diminish in the sputum and finally to disappear.

The author's conclusions are based upon their observations in 75 patients, which they describe in detail. They conclude that the radioactive iodomenthol has a germicidal action upon the tubercle bacillus and upon the streptococcus, that it improves the general condition and appears to exert a general dynamogenic effect, leading to an increase in body-weight and exerting its favorable action in spite of intercurrent affections. In tuberculous adenitis its action was found to be curative; it also affected tuberculous laryngitis favorably.

The report of the French investigators is decidedly enthusiastic. If it should prove to be well founded, it would appear that this new remedy might supply those physicians who cannot, for some reason or other, make use of strictly specific remedies for tuberculosis with a means of combating consumption that might assist their general treatment decidedly.

There are some points in the communications of Szendeffy and of Bernheim that cannot be accepted as definite, nor has it been shown whether the formula of the remedy is primarily an acceptable one. The reports which are available so far are of sufficient interest to encourage further investigation.

THE DEATH OF DR. ALEXANDER H. FERGUSON

We have just learned of the death of Dr. Alexander H. Ferguson, one of the best-known surgeons in Chicago, and former president of the Chicago Medical Society, which occurred October 20, following a long illness due to septicemia resulting from a carbuncle. A more extended notice will appear in the next number of CLINICAL MEDICINE.

NEWS NOTES

We shall announce the names of the prize winners in our September contest next month. Be on the lookout for it.

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Dr. W. A. Evans, former Health Commissioner of Chicago, is now the editor of the department on "How to Keep Well," a feature of *The Chicago Tribune*.

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The Baltimore (Maryland) Health Department has begun the manufacture of typhoid-fever serum to be used for the prevention of that disease, and is distributing this serum among the physicians and hospitals of that city.

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Dr. Howard A. Kelly, the well-known Baltimore surgeon and professor in Johns Hopkins Medical College, was operated upon by the Mayos, at Rochester, Minnesota, in September. The character of the operation is not announced, but his condition is said to be excellent.

According to Dr. Ludvig Hektoen, there is not one single completely equipped medical school in Chicago. According to the statement which he makes in a Chicago newspaper, "they are either lacking in apparatus, in faculty or in clinic."

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The office of Secretary of the Illinois State Board of Health now falls under the Civil Service Law, so that hereafter Dr. James A. Egan will not be dependent upon changing administrations for his tenure of office. We congratulate Dr. Egan, who has done efficient work in our state board for many years.

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Wisconsin now has a law requiring all physicians to report to the State Board of Health all cases of poisoning from lead, phosphorus, arsenic, mercury, or from compressed-air illness contracted as a result of the patient's employment. Blanks for reporting such cases have been prepared by the board and are supplied free to physicians of that state.

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Our old friend Dr. Wm. Steinrauf of St. Charles, Missouri, writes us of the death of his son, Albert Steinrauf, in Panama. He had lived in the tropics ten years. He did hospital and other work in Manilla, and later was employed on the Isthmian Canal at Panama. His death was due to chronic malaria and enlarged liver. Our sympathies all go out to Dr. Steinrauf.

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We learn from one of our lay exchanges that in eleven southern states 10,300 new cases of pellagra have been recorded this year. The disease is spreading rapidly. There are few cases of this disease in any northern state except in Illinois. The mortality is between 50 and 75 percent of the total number of cases, and about 30 percent are said to reach the state of insanity.

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We learn from the newspapers that Dr. John F. Anderson, Director of the U. S. Hygienic Laboratory at Washington, D. C., and Past-Assistant Surgeon, Joseph Goldberger, have at last succeeded in isolating the specific organism that causes measles. It is stated that the inoculation of the monkey with this organism has produced the characteristic symptoms of the disease. The character of the organism is not yet described.

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A committee of the American Gynecological Society, headed by Dr. Barton Cooke Hirst, professor of obstetrics in the University of Pennsylvania, is urging state medical examining boards to require graduation from a medical school which demands of its students personal attendance upon at least 6 obstetrical cases before graduation. This is certainly a reasonable demand. The number required is small as compared with the requirements in Europe, where 40 to 50 cases must be seen by graduates before they can be licensed to practice.

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On page 1104 of the last CLINIC we printed an article to which the name of Dr. G. A. Pratt, of Munday, Texas, is appended. Now cometh a letter from Dr. G. A. Trott, also of Munday, Texas, who assures us that Pratt is an "impostor," and requests us to "swat" him. Dr. Trott then confesses that he wrote the little article himself, and suggests that perhaps it is just as well that Pratt should be held responsible for the "prattle" referred to. Be that as it may, we apologize to the readers of CLINICAL MEDICINE for foisting the impostor Pratt upon their attention, and for neglecting Trott. We shall not try to explain how the mistake happened—we just trott out and apologize, that's all.

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Some months ago it was announced that the buffalo gnat was the direct agency in transmitting and carrying pellagra, in the same way that the mosquito carries and transmits malaria and yellow-fever. However, the theory has never been proved, although some attempt has been made to learn the truth. The buffalo gnat is a very small, black, hump-backed gnat. The larvas of the gnat, so we are told, live and hatch out in rapid-flowing streams and not where the water is sluggish. However, artificial conditions may cause the water to flow rapidly, in which case the gnat

may appear elsewhere, as along the Mississippi River Valley in 1884.

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We are pleased to announce that the second annual meeting of the Clinical Congress of the Surgeons of North America, so auspiciously organized in Chicago last year, thanks to the energy of Dr. Franklin H. Martin, will meet in Philadelphia, November 7 to 17. The days will be devoted exclusively to clinical work (more than 200 clinics have been scheduled in 26 different hospitals) and the evenings to lectures. The biggest men in American surgery will be in attendance, and an enormous variety of clinical material is available. Philadelphia is one of the greatest medical centers in the world, and she is preparing to "do herself proud." The Chicago meeting of this body was a revelation; the Philadelphia meeting will be a still greater one. The president is Dr. A. J. Ochsner of this city. Plan to attend.

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Talk about the high price of living! Here comes Dr. George Ward, who is a "veterinary," and lives in Connecticut. He is seventy-four years of age, and challenges anyone in his state to walk any distance, and at any speed—anyone, anywhere in the world. Dr. Ward says that a man who wishes to live cheaply can grow into a "pillar of strength" on ten-cents' worth of oatmeal a week, but the Doctor likes luxury too well to confine himself to oatmeal, and he is not so stingy that he minds spending 26 cents a week pampering himself. "All of us have our weaknesses," he explains, "and mine is for peanut butter and crackers, so I don't begrudge the expense." Having a grocery bill of $13.52 a year, Dr. Ward can hardly be expected to sympathize with those of us who like sugar at 8 cents a pound and porterhouse steak at 25 cents—and lots of them.

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The New York Evening Post cleverly takes off the medical information dispensed by the daily press, in the following words:

"The great public takes its medical knowledge from the Sunday supplements, from which it learns successively that science can now create life, that bathing does more harm than good, that a cure for tuberculosis is near at hand, that *x*-ray therapy kills more people than it saves, that tuberculosis is on the increase, that cancer will soon be checked, that diphtheria is on the increase, that cancer is on the increase, that hydrophobia is on the increase and the Pasteur cure is a fraud, that organic diseases can be cured by starvation, that starvation leads to madness and death. It is a welter of credulity and rumor that would be laughable if it did not so intimately concern the lives and the health and even the spiritual well-being of the community. For it is a fact that people will stake their own lives and health, as well as the lives and the health of those that are dear to them, on vagaries, wild assertions, and equally wild denials. And because every vagary or superstition always associates with itself some name high in authority, the mischief thrives the more."

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Through the newspapers we learn that Admiral Togo and his staff suffered from indigestion, on several occasions, as a result of the too generous treatment accorded them by our admiring Government, during their recent visit to America. One of the saddest incidents of this character occurred in Boston. During the course of a banquet a member of the Admiral's staff was noticed to rise in haste from his position at the table, one hand pressed upon his epigastric region, while a look of anguish, tinged with surprise and concern, crept rapidly over his countenance. The following day the newspapers informed us that this brave naval officer had suffered an attack of indigestion. He had eaten too many Boston baked beans.

Admiral Togo and his men have faced without flinching all the dire dangers of the deep, they have looked into the Russian cannon's mouth with smiles on their faces and "banzais" on their lips, but it is safe to say that hereafter none of them will be able to look upon a plate of Boston baked beans without horror and alarm. "Peace hath her dangers no less renowned than war," or as Virgil would say: *Timeo Americanos et fabas ferentes.*

JUST AMONG FRIENDS

A Department of Good Medicine and Good Cheer
for the Wayfaring Doctor

Conducted by GEORGE F. BUTLER, A. M., M. D.

THE best treatment I know of for paralysis of the bladder, whether mechanical or of nervous origin, and including stricture and prostatic enlargement, is the injection into the bladder of 15 or 20 Cc. of a 2-percent boroglyceride solution with just enough force to overcome resistance of the sphincter and pass into the bladder. Usually one injection is sufficient. But along with this, the patient should take a combination, in tablet form, consisting of berberine hydrochloride, gr. 1-6; juglandin, gr. 1-6; physostigmine salicylate, gr. 1-500; strychnine sulphate, gr. 1-67; capsicin, gr. 1-67. Of these, four tablets a day should be used. This prescription is also of great value in colonic paresis.

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Obstinate constipation is one of the most troublesome conditions we have to contend with. Not long ago I read that rectal injections of soft paraffin acted well. I have treated successfully, lately, several cases of obstinate constipation associated with dry, scybalous masses and diminished reflex irritablilty of the lower bowel, by injecting into the rectum, each night, about 200 Cc. of a soft petrolatum, of near 100° F. melting-point, warmed until fluid. The patient should be in the knee-chest or side posture, a warmed syringe or rectal tube being used to inject the liquefied paraffin. After about eight or ten days the amount injected may be reduced one-half, while in the course of another week or two the injections need be given only every other night, to be discontinued entirely after a while. Should there be no spontaneous movement in the morning, a small dose of effervescent saline laxative before breakfast and a small saline enema should be ordered. Waugh's anticonstipation granules should be taken daily, to increase muscular tone, one to three, thrice daily, being the ordinary dosage.

This subject of constipation reminds me of a very troublesome condition that we have to contend with, namely, pruritus ani. Very often this symptom is the result of local irritation in the rectum or large bowel, and in all cases I am in the habit of ordering washing out the large bowel with saline enemas and prescribing, internally, each morning before breakfast a small dose of saline laxative, preferably magnesium sulphate; also, two hours after each meal, a dose of sodoxylin, to overcome any acidemic condition that may be present. Locally, I have the parts bathed twice daily with starch water as hot as can be borne, and the application of the following ointment: Phenol, 20 grains; calomel, 1 dram; tar, 1 dram; menthol, 10 grains; zinc oxide (very fine), 1 dram; petrolatum, 6 drams; lanolin, 2 drams.

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I have had excellent success with potassium permanganate in the treatment of amenorrhea in young women. This agent is useful also in cases of scanty, and perhaps delayed, menstruation. Potassium permanganate may be given in doses of from 1 to 2 grains three times a day after meals, and continued until the catamenia appear and complete their course, when the salt should be discontinued. It should be recommended four days before the access of the next period, and continued till the flow ceases.

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I have had as good success with atropine and adrenalin in the treatment of bronchial asthma as I have had with any other drugs.

Gelseminine is a drug that should be used more than it is. I have found it of value in many conditions. Among those that occur to me just now are acute spasmodic stricture of the urethra, and if given after each pain it often will arrest false labor. It is one of the best drugs to give to allay excitement, and to stimulate secretion previous to the administration of quinine. It is very efficacious in early chordee, and, when given in full doses, in many cases of ovarian neuralgia.

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Morphine, atropine, and glonoin in small doses are the three best remedies one can give in cases of hemoptysis.

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As a prophylactic of recurring tonsillitis, the teeth, gums, and especially the base of the tongue should be brushed two or three times a day with a moistened toothbrush dipped into fine sodium bicarbonate. This oral disinfection should be practised every morning at least, for the flora of the mouth is particularly apt to flourish during sleep, when none of the mechanical and detergent effects of mastication, salivation, and speech are in operation. Of internal prophylactic remedies, I consider sodoxylin and a saline laxative the best. Forcheimer thinks he frequently has prevented an attack of quinsy by giving 5 grains of salol every two hours for forty-eight hours.

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A flight of storks not so long ago visited Wilmette, the Chicago suburban village where I live. These birds of good luck were first seen over Evanston and their course was watched from the best residences of that suburb with anxiety and alarm. In that particular section but very few people desire a visit from the stork, since it always brings care and noise and disturbance of old, settled ways.

But these birds were evidently heading for the region of Lake Forest. As soon as their coming was observed, consternation ran riot through that patrician quarter. Servants were summoned in hot haste out of every mansion, and there was a great beating of tom-toms and firing in the air. For by the beating of the tom-toms—and by certain other precautions—one can often scare away the stork.

So it happened this time—and Society (with a big red capital S) breathed relief. Soaring high above the din, those storks circled south by sou'west without stopping, and many of them nested in the neighborhood of Milwaukee Avenue, where they are better acquainted and more welcome.

The stork likes to make its nest on the roof of the chimney of a humble home, but it does not often roost on the palatial residences of the North Shore. On Milwaukee Avenue they charge this to "a Yankee trick." Whatever the reason, the fact makes Lake Forest a lonely place. No rout of childish feet upon its lawns; no prattle of baby voices in its halls; its atmosphere serenely still—still and dead as are the hearts of the women having there their abodes.

Noticing the direction the storks had taken, I went down in the neighborhood of Milwaukee Avenue not long after, and there I came upon a throng of children that amazed me. They were running about everywhere. They were arguing loudly, or whispering mysterious secrets, or playing their different games. The sidewalks were full of changing groups; the curbings were lined; and from one gay circle out in the roadway came the sweet shrill chorus of a simple song.

Upon the edge of that swarm I stood still in admiration and counted them. There were just thirty-two children within my easy grasp; nor had they been collected throughout the neighborhood for a show-bunch. All along, as I walked up the voicy-noisy street, I met little babies in their mother's arms and children of all ages at their play—I counted nigh onto two dozen more. And were these noisy jolly throng homeless waifs and dirty ragamuffins? No, they were the sons and daughters of respectable people, decently clothed and cared for, and living in comfortable modern houses.

Is human nature the same in some of the North Shore suburbs as it is on Milwaukee Avenue, or has culture sapped its strength? If you of the swell localities, Madame Sansenfant and Madam Amour-Propre,

should see the babes and kids along Milwaukee Avenue, what would the sight do to you? Imagine fifty little ones playing, "Hill-Dill" and "Ring-around-o' Roses" on Lake Shore Drive or Drexel Boulevard, or in the sacred precincts of Lake Forest! It would be the wonder of the city. It would mean the filling of your empty churches. It would foretell the regeneration of the Puritan race.

The United States, and especially the section known as New England, is a farm which needs a change of crops, and it is rapidly getting that change by the survival of the fittest. The Puritans came over here, and by dint of fighting and by virtue of their hardihood they grew to the stature of heroes. They conquered the country—but afterward the country conquered them. For their reddest blood was always flowing out into the stern life of the advancing frontier and into the making of newly making states; while the Puritan who stayed behind cultivated himself and anon began to prune away his inherited vitality.

The old strength still does break out from time to time. It reddened the fields of Gettysburg and the hill of San Juan, and it bides its hour to do such deeds again. But the cultivated Puritan is apt to deprecate this vigor. As his blood became blue it grew cold. He belongs to a Peace Society. He hates scrapping, and expansion, and new people, and responsibilities. He wants none but a small-sized family; and his children grow up into futile bachelors and faddish old maids.

It is a good strain, this Puritan blood. It makes the best pioneers in the world; yet, on its own soil, as every one knows, this stock is as much doomed as are the Kanaka of Hawaii.

Where can one look for salvation? It is hopeless to suggest a simpler, a plainer life. The country comes to the city, and there it runs the same race of fashion, refinement, emptiness, degeneration; and though a remnant will be saved by the counter current now setting in toward country homes, still, the real chance for the Puritan is in intermarriage with stronger, fresher races. But the Puritan who is rooted in our soil would sooner see his family-tree decay and perish from the earth.

Yet the new race is on the way. There have been immigrants other than the Puritan—Irish, Scots, Germans, Swedes have grasped the magnificent opportunities presented by the New World, and in the second and third generations they are approaching their prime. Albeit, as unmixed races, they, too, would sooner or later become decadent.

But they will not remain unmixed; and when all these peoples, Swedes, Irish, Yankees, Scots, and the rest are merged and their blood has been mingled through and through, then shall we have the real AMERICAN RACE. This new race will not come right now, or soon, or at any measured period, but it is already coming; and it will culminate in a type better than anything the world has yet seen, the flower of humanity, destined to rule for long years. The Puritan now has his golden chance to impose upon this evolving race the splendid strain of his blood and the stamp of his cherished ideals. Will he grasp the opportunity?

Not, if he clings to his prejudices. Not, if he frightens away the Stork!

—

My heart goes out in tenderness to the man who has tried, and failed. He is not rare. Indeed, he is but one of the nine hundred and ninety-nine to be found in every thousand who put a foot forward into unknown darkness, only but to fall.

But though the experience saddens and staggers; though it does not seem to profit him; though it calls out all his faculties to weather the storm created by his efforts to maintain himself and his during the trial, he is stronger for the trouble, and his profit has been quite as great as has that of the One who stepped upon solid ground. His portion has been experience; that, dearly bought though it may have been, will be capital secure when he tries again. And, too, his experience has been a danger signal and the kindness to the many who might try as he has tried.

We all have our goals. They seem to be so brilliantly lighted that a straight-away path is beaconed for us, and we rush head-

ong into the way marked out, only to realize that our goal recedes like the end of the rainbow of the stories of our youth. We find pitfalls in the shadows of the great light; encounter stumbling blocks that must be rolled aside and forks in the road the choice between which is a trying task. And earnestly we strive to remove all difficulties, often but to find that we have had naught but our labor for our pains.

We sit down to think it over. We brood and tear our hair, and make miserable with our misery. But let it not be for long.

Life is good—filled to the brim with much that is really worth while. And the hunt is in us, and the hope, and the faith; so let us lift our heads and with our purpose clearly defined let us out and for it.

To brood is to make brood.

To sorrow is to make sorrow.

To whine is to disgust.

So, even though the rainbow ends in a pot of junk, let us smile and make smile as we try again.

There would be no such thing as success if all succeeded; no joy, if all were joyful. Success and joy are comparative conditions, and are only for us in such a measure as we may be able to take them in.

And if we fail, and fail again, we may know the reason, if we will. We are inclined to blame others for ill-success, to elicit sympathy by talking of conditions and evvironments; but deep down in our own hearts we know that our own lack of strength to cope with these conditions and environments, the lack of certain elements in our natures has brought the Black One to us, and that these rocks and pitfalls in the roadway are but chapters in the lesson of life. One word more.

If things go wrong with you, cut envy from your heart. If you see your neighbors doing the thing that you would like to do, just speed them along. It lowers your self-respect to nurse a wrath against anyone.

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We can tell the general type of mind and heart to which a man belongs. We can tell what books he reads—the prevailing thought with him—what Master he follows. We talk with a man on social questions, and we soon know who his Master is. If he is fond of a strong central government and has aristocratic tendencies, he is a follower of Alexander Hamilton; but if he believes in the "common sense of most," in the people's ability to take care of their own affairs, then he is a follower of the writer of the Declaration of Independence.

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There are times and seasons when the best friends would better be far apart in space. Domestic happiness would be increased and last longer if men and women did not live so much together. The friends at Brook Farm could not endure the bodily presence of each other. They scattered, and continued friends. Doubtless the disciples had been together long enough. Peter and Paul did not quite understand one another. There is a personal individuality that must be allowed for.

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If you read Emerson a good deal when a boy, it will appear in the formation of your sentences. Once, a boy had his ideal of eloquence: it was to be noisy of speech and to pound the furniture. And when some fortunate evening he heard Wendell Phillips, he heard the orator of America "converse" with a multitude as if he were talking to an individual. After that, the boy did not declaim; he did not sweat and froth and pound any more. When Wendell Phillips came in, minister's sore-throat went out. The boy found out that what the world needs is not *noise*, but *light*. This, possibly, may apply to the practice of medicine. Think it over.

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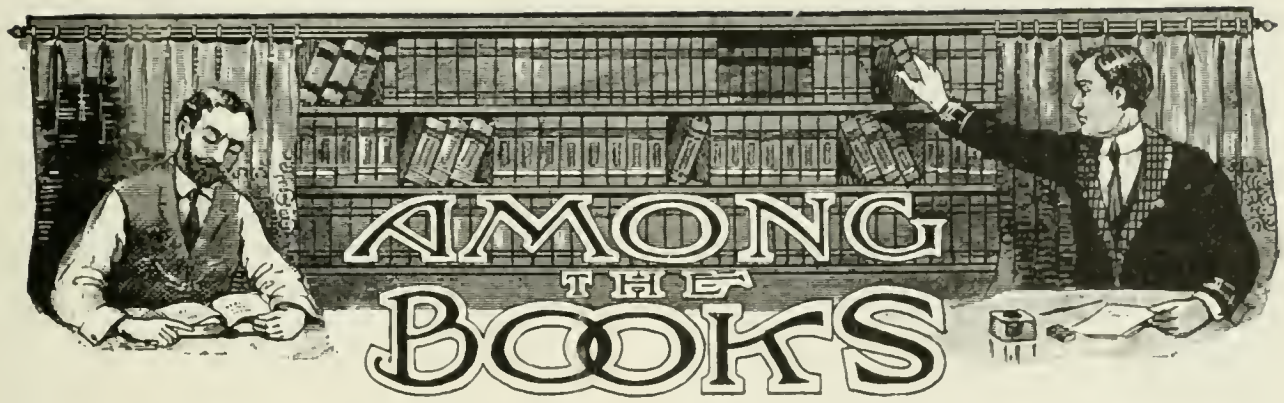
Doctors should get closer together than any or all other workers, and if we should more frequently scan the Hippocratic code we would realize more completely our duty. "Put yourself in his place" is a good thought for us to keep in mind, and the old German proverb which freely translated reads, "To know all is to forgive all," should be ever before us.

Let us study and strive to ever have regard for the "other fellow," for God only knows the burden he bears, the blood he sweats; to be glad when gladness comes to him, sorry for him in his troubles, rejoice in his success, sorry for his sorrow.



STRUEMPELL'S "MEDICINE"

A Textbook of Medicine for students and Practitioners. By Adolf von Struempell, M. D., Professor of Special Pathology and Therapeutics at the University of Leipsic. Fourth American Edition, translated by permission from the 17th revised German edition. With editorial notes, additional chapters, and a section on mental diseases, by Herman F. Vickery, A. B., M. D., Instructor in Clinical Medicine, Harvard University, and Philip Coombs Knapp, A. M., M. D., ex-president of the American Neurological Association of the New England Society of Psychiatry. In two volumes. New York and London: D. Appleton & Co., 1911. Price $12.00.

In the first volume a variety of conditions are described, namely, acute general infectious diseases, diseases of the respiratory organs, diseases of the circulatory organs, diseases of the digestive organs, and diseases of the urinary organs.

Struempell's textbook presents the essentials of our present knowledge of medicine. To this end the author has brought the results of his enormous clinical experience into the closest possible relation with the data of pathologic anatomy and general pathology. In discussing therapeutics, he has endeavored to deduce from the nature of the symptoms a basis for rational medical opinion and treatment.

This is a book of clinical medicine, especial stress being laid on the presentation of clinical phenomena as observed by the physician. The work is as the author says, "the outgrowth of an unceasing broad clinical activity and is much more a product of the hospital ward than of the study."

Throughout the entire work the author has endeavored to bring the contents to the level of contemporary medical knowledge. In the discussion of uremia, for instance, the author passes in review the various theories that have been suggested as to the cause of this condition, drawing attention to one of the most recent, namely, the production of nephrolysins—a theory which has been advocated by Ascoli and others. While citing these new theories, the author nevertheless is forced to the unsatisfactory conclusion that, in spite of the large amount of patient research that has been expended on this problem, no solution yet proposed has met with general acceptance.

The second volume is devoted to diseases of the organs of locomotion, constitutional diseases, diseases of the nervous system, including those of the peripheral nerves, of the spinal cord, of the medulla oblongata, of the brain, neuroses without known anatomical basis, and mental diseases.

The chapter on chronic polyarthritis will well repay perusal. The author believes that the socalled "rheumatogenous influences" have probably been instrumental in the production of this affection, and, while not giving a really scientific classification, he goes thoroughly into the clinical features under the various forms.

While not as exhaustive as some of the special reference works on medicine, this work nevertheless is peculiarly practical, the salient features being set forth clearly. The illustrations are numerous, while the good quality of paper used in the volumes renders them unusually clear and distinct. The general arrangement of the subject-

matter is convenient and easy of reference. The translation is unusually faithful, while the English in which it is couched is so good that it has the merit of concealing the fact that the work was originally written in a foreign language.

As a record of laborious clinical work, these two volumes are worthy of the highest commendation, being as they are a capital exposition of the principles and practice of medicine as they appear to one eminently well qualified to describe them from his own extensive experience.

GEO. F. BUTLER.

HINSDALE'S "HYDROTHERAPY"

Hydrotherapy: A Treatise on Hydrotherapy in General; Its Application to Special Affections; the Technic or Processes Employed; and Use of Waters Internally. By Guy Hinsdale, A. M., M. D. Illustrated. Philadelphia: W. B. Saunders Company. 1910. Price $3.50.

This book offers a handy and useful guide for the administration of hydrotherapeutic measures in the different diseases where they are indicated. The reviewer confesses that he is sometimes startled at the lengths to which the advocates of hydrotherapy will go, but undoubtedly much good is done by these methods if they are properly applied, and for this purpose an authoritative guide, such as the book before us, is indispensable.

KELLAS' "INORGANIC CHEMISTRY"

Manual of Practical Inorganic Chemistry, Including Preparations and Qualitative and Quantitative Analysis, with the Rudiments of Gas Analysis. By. A. M. Kellas, B. Sc., Ph. D. London: Henry Frowde. 1910. Price $1.35.

I have looked over these two books of Dr. Kellas' with much pleasure. It is rare that one finds chemical facts and theories so practically stated as is done by this author. These books are especially valuable for the pharmacist and physician, since they treat in detail the preparations, both inorganic and organic, found in the Pharmacopoeia. Detail tests and methods of procedure are given.

I believe that the doctor should spend a portion of his library time in refreshing his chemical knowledge. The most scientific work that is being done in medicine at this time is possible only with the aid of chemistry. Take "606" as a typical example. Take also the information to be derived from urine analysis and its practical value in the treatment of disease.

These books of Dr. Kellas' are so interestingly arranged that I believe that the doctor will derive much pleasure as well as valuable information in reading a chapter from time to time. Such has been my experience.

The price of $1.35 each is so reasonable for the value given that I do not hesitate to urge readers to purchase a copy at once for their libraries.

F. P. SUMMERS.

KELLAS' "ORGANIC CHEMISTRY"

Introduction to Practical Organic Chemistry, Including Qualitative and Quantitative Analysis and Preparations. By A. M. Kellas, B. Sc., Ph. D. London: Henry Frowde. 1910. Price $1.35.

WARE'S "PLASTER OF PARIS, AND HOW TO USE IT"

By Martin W. Ware, M. D., Adjunct Attending Surgeon, Mount Sinai Hospital, (N. Y.); Surgeon to the Good Samaritan Dispensary; Instructor of Surgery in the New York Post-Graduate School. Second edition, revised and enlarged. Price, cloth, $1.25. Surgery Publishing Company, New York.

The exhaustion of the first edition and the persistent demand for this helpful book were the incentives for this second edition, which has been completely rewritten and enlarged and thus its scope of usefulness been greatly extended. Complete new drawings and marginal side notes in red embellish the book and ninety illustrations are used more clearly to put up to the eye of the reader the intent of its subject-matter.

Such information as History, Materials, Manufacture of Bandages, Storage, Bandages of Commerce, Calot Plaster Bandages, The Immediate Preparation of Bandages, Application and Precaution, Removal of Bandages, etc., are all given under the contents of The Plaster of Paris Bandages. Then follow such chapters as Application of the Plaster of Paris Bandage to Individual Fracture, Fractures of the Upper Extremity, Fractures of the Lower Extremity, Molded Plaster of Paris Splints, Plaster of Paris in Orthopedic Surgery, etc., and all presented in such a comprehensive manner as to make this book of particular service to every doctor. The mechanical features of the book are decidedly striking.

HISS AND EBERT'S "STANDARD FORMULARY"

The New Standard Formulary. By A. Emil Hiss, Ph. G., and Albert E. Ebert, Ph. M., Ph. D. Complete in 6 parts, comprising (1) pharmaceutical preparations, (2) domestic and veterinary remedies, (3) proprietary and synthetic remedies, (4) perfumes and toilet articles, (5) domestic utilities, (6) soda-water and other beverages. Chicago: G. P. Engelhard & Co. 1910. Price, stout buckram, $5.00.

In 1909, January issue of this journal, the writer had occasion to discuss in favorable terms the first part of this reliable collective formulary, then issued as a separate volume. The completed work, now under review, in every way fulfils the promises of the publishers, and it can only be repeated that it constitutes a most valuable, one might say indispensable, addition to the library, not alone of every pharmacist, but to that of every enterprising practitioner as well. Its wide scope is indicated by the contents as enumerated above, the pharmaceutical preparations comprising, of course, the greater part—one half out of the nearly 1200 pages—being representative of all the pharmacopeias, dispensatories, and recognized formularies of the world, besides the many formularies from other sources, numbering altogether probably 3000 or more preparations.

As to the other five departments, it stands to reason that the alert doctor who familiarizes himself with the contents of this formulary can greatly enhance his efficiency among his clientele as well as in his home life. Thus the 200 pages devoted to proprietary and synthetic remedies—possibly 4000 titles—supply him with invaluable information concerning these products, as to nature or composition. Many a doctor can make himself useful by giving advice (not to mention his personal affairs) regarding the treatment of horses, cows, and the other domestic animals, besides housepets. And, finally, he should almost daily be able to glean serviceable advice from the departments devoted to cosmetic preparations (including massage creams, skin-creams, hair and tooth preparations, etc., etc.) and the socalled "domestic utilities," telling how to prepare cements, glues, insecticides, parasiticides, disinfectants, inks, cleansers, polishes, blacking, paints, stains, and that multitude of useful household formulas impossible to group. The book should pay for itself over and over again.

A. G. Vogeler.

KELLOGG'S "BATTLE CREEK DIET LIST"

The Battle Creek Sanitarium Diet List. By J. H. Kellogg, M. D., Superintendent. Modern Medicine Publishing Company, Ltd., Battle Creek, Michigan. 1909. Price 25 cents.

The detailed and far-reaching researches of Dr. Kellogg in dietetics are well known, and in spite of his equally well-known and evident leaning toward vegetarianism, the author of this little brochure has done much toward securing the recognition of the prevailing low-proteid standard of diet.

The purpose of the diet list is to assist those who appreciate the importance of diet and nutrition as factors in human efficiency, to regulate habits of eating in harmony with the latest findings of physiologic research. It is an excellent little guide to look up the caloric value of different foods, to determine the food requirements for different ages and sexes, taking into consideration, of course, the

occupation of the people whose diet we have to regulate, and, altogether, forms a valuable reference-list for the doctor's daily work. Dr. Kellogg has kindly consented to send this list to any physician who may ask for it, and we would advise our readers to avail themselves of this generous offer.

MUMFORD'S "SURGICAL PROBLEMS"

One Hundred Surgical Problems. The Experiences of Daily Practice Dissected and Explained. By James G. Mumford, M. D. Boston: W. M. Leonard, 1911. Price $3.00.

This companion volume to Morse's "Pediatrics" (see CLINICAL MEDICINE, Aug. 1911, p. 913) follows the general plan outlined for the entire "Case History Series" which is being published by W. M. Leonard. The condition of the patients, such as may consult the surgeon every day or be referred to him by internists, are described briefly and concisely. The problems which are thus presented are discussed, and the treatment and result related.

Dr. Mumford does not present us with "one hundred operations without a death," or anything of that sort. Failures are reported as well as successes, and it seems to the reviewer that the former are even more instructive than the latter. There is nothing dry or wearisome in the volume. The style is attractive and the case-histories are handled in a manner as though the author might be relating them during a friendly call and were quite ready to discuss their merits and demerits. To judge from the two books—those by Morse and by Mumford—thus far issued, this series of case-histories will prove an unusually excellent one and is certain to find favor with the general practician.

JONES'S "DEFINITE MEDICATION"

Definite Medication. Containing Therapeutic Facts Gleaned from Forty Years' Practice. By Eli G. Jones, M. D., New Jersey. Published by The Therapeutic Publishing Company, Inc., Boston. 1911. 8vo, 312 pages. Price $2.50.

Dr. Jones is an eclectic, and he browses about over the therapeutic field wherever he can find sustenance. He advocates Lloyd's specific medicines and Boericke and Tafel's homeopathic remedies, and anything else that seems good to him, without the slightest regard for the feelings of the respected Council, the revered Code, the consensus of medical opinion, the trend of medical belief, or facts proved beyond the possibility of rational doubt. Consequently, he is often absurd, always short-sighted, too egotistic to be conscious of his own narrow limitations in knowledge, and too set in his opinions to learn.

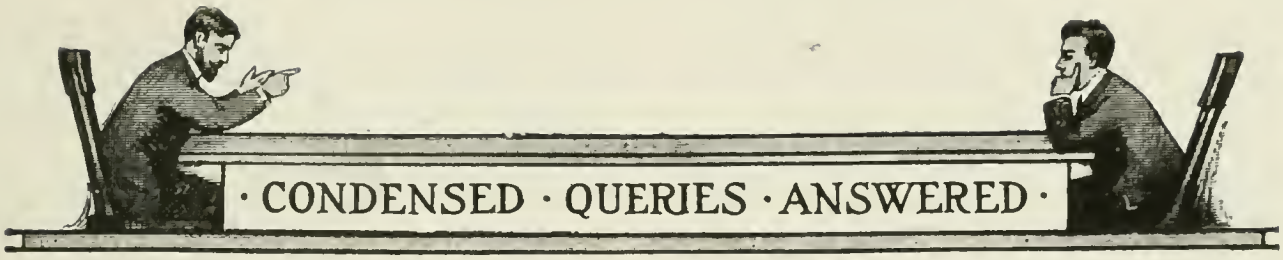
Nevertheless, such books and men have their uses, and it is good to meet a man who is not conventional, but looks with such eyes as Heaven has blessed him with, and thinks with that modicum of brains vouchsafed to him, instead of taking his beliefs from authority. Such men are apt to stumble on valuable truths not as yet to be found in the "most approved textbooks."

For the personality of authors we care not a jot. For their errors we care as little. We make mistakes ourselves; so do all other men, even the immortal three, Hare, Cushny, and Sollmann, and we expect faults and blemishes in all human endeavor. But we like to search such books, in the hope that we may find therein some stray fragments of useful matter that has escaped the others. Don't be too sure you'll not find any in Jones's book. Better look.

WECHSELMANN'S "TREATMENT OF SYPHILIS"

The Treatment of Syphilis with Salvarsan. By Professor Wilhelm Wechselmann, Berlin; with an Introduction by Dr. Paul Ehrlich. The Only Authorized Translation, made by Abr. L. Wolbarst, M. D. New York: The Rebman Company. 1911. Price $5.00.

Wechselmann was one of the first clinicians invited by Ehrlich to investigate the merits of his newly discovered remedy for syphilis, and a report by this noted observer upon arsenobenzol is of particular interest to medical readers.



PLEASE NOTE

While the editors make replies to these queries as they are able, they are very far from wishing to monopolize the stage and would be pleased to hear from any reader who can furnish further and better information. Moreover, we would urge those seeking advice to report the results, whether good or bad. In all cases please give the number of the query when writing anything concerning it. Positively no attention paid to anonymous letters.

QUERIES

QUERY 5743.—"Urethral Fistula." A. L. S., Oklahoma, has under his care a man operated upon seventeen or eighteen years ago for anterior urethral stricture. The incision was made through the perineum and a sound introduced, opening up the stricture. This later closed, and with the well-known results. The stricture was complete, the urine extravasated through that opening that was made seventeen years ago, the skin on the pendent parts of the testis sloughed off and water extravasated there. However, the man seemed to get along fairly well till from exposure and exertion he had an exacerbation of his condition and the skin just above the pubes finally broke down from extravasation of urine.

"I took the patient to a hospital, operated, opened the stricture again, made an incision, opening the place above the pubes, curetted, packed with iodoform gauze. You could take a probe and pass into one opening, and it could be made to communicate with all the other openings. A sound was passed continuously for five or six months, when the patient thought he was well. Water passed freely, so he decided not to have me pass sounds any more. He had recovered normal weight—about 180 pounds. (His weight before operation was 135 pounds.) He now began lifting heavy things, and, as a result, the lesion above the pubes reopened, urine began to extravasate again; later the perineal incision opened."

For a year the doctor has passed sounds, washed out all the sinuses with hydrogen dioxide, mercuric chloride, lysol, etc. He has given iron, quinine and strychnine, for tonic effect, with salol, urotropin, potassium citrate, buchu, juniper, etc. Patient is now "at a standstill." The man has had both lues and gonorrhea.

There is just one rational procedure in this case. Send the man to a good hospital for an operation. Have the urethra and bladder thoroughly treated, and when the invading bacteria have been destroyed, have a thorough operation done. At the present time there unquestionably are colonies of gonococci in the deep urethra (and possibly in the bladder), with streptococci or other pus-forming bacteria in the old lesions.

Healing could not possibly be secured under the circumstances, and you can never expect the man to recover unless the parts are rendered surgically clean, the edges of the wounds trimmed and the tissues brought together with sutures. Treatment will have to be continued for several weeks, as operation could not possibly prove successful until the underlying infection is controlled.

You might give this man large doses of calcium sulphide, echinacea, and nuclein for a week or two preceding his entering the hospital, cleansing the parts thoroughly with hydrogen dioxide, warm boric-acid solution, and then touching all available surfaces with pure oil of turpentine (U. S. P.). Dress with gauze soaked with an antiseptic oil. Apply the oil of turpentine only to the denuded surface.

The patient is in a serious condition, and we would suggest that you take pains to place him under the charge of a really

competent genitourinary man in a well-equipped hospital.

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QUERY 5744.—"Anemonin as an Aid in Inducing Pregnancy." J. C. H., Indiana, informs us that anemonin has been recommended to him as an aid in inducing pregnancy. Information bearing on this action of the drug is desired.

Anemonin is useful in amenorrhea, dysmenorrhea, and spermatorrhea, the drug giving strength and tone to the reproductive organs, especially in the absence of acute inflammation. The homeopath gives pulsatilla (of which anemonin is the active principle) "when the patient suffers from mental perturbation and apprehension or where genital maladies cause great anxiety." When this mental state is present *during* pregnancy, anemonin is beneficial. It also relieves nervous exhaustion, headache, the constipation and dysuria of hysteria and pregnancy.

Pulsatilla is credited with a favorable influence upon diseased synovial membranes. In large doses, it depresses the circulation, respiration, and spinal cord, somewhat resembling aconitine in its action. In small doses, it stimulates the cerebral function, tones the sympathetic, increases cardiac power, and slows the pulse (rapid and weak) in nervous prostration. For detailed description see the chapter on anemonin, "Textbook of Alkaloidal Therapeutics."

It can thus readily be seen that conditions which might prevent pregnancy would be materially modified and removed by anemonin; still, it would hardly be safe to regard this drug as a generally applicable aid in promoting this state. More effective agents are at our command.

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QUERY 5745.—"Proctitis." R. W. G., Montana, sends a specimen of mucous alvine discharge for microscopical examination, and offers the following clinical data: The case originally was one of gonorrheal proctitis (microscopical diagnosis). Symptoms disappeared temporarily after injection of Neisser bacterin (Mulford). The discharge commenced again about a month ago, but examinations have failed to reveal the gonococcus or other pathogenic bacteria, though some unrecognized bodies are found.

Our pathologist reports that you have to deal with a chronic proctitis. Examine, with speculum and reflected light, the lower bowel and discover the exact conditions. You may find a small ulcer just above the internal sphincter or even a blind internal fistula.

We should dilate the sphincter, cleanse the bowel thoroughly with a solution of hydrogen peroxide, 1 part, in water, 3 parts, then with a warm boric-acid solution. Dry the mucosa carefully with a cotton-wrapped applicator and swab thoroughly with thymol iodide in petrolatum; or, better still, after drying, inject into the rectum a dram of such preparation. Supply the patient with carbenzol or similar ointment, and a pile-pipe, and instruct the patient to insert 1-2 to 1 dram of the ointment each night; a laxative saline draught should be taken on rising in the morning. Give calcium sulphide, 1-3 grain four times a day for a week. If an ulcer can be detected, cleanse, touch with pure carbolic acid, neutralize in one minute with alcohol, then paint with pure oil of turpentine (U. S. P.), confining the application to the ulcerated surface. Then apply the foregoing ointment and insert a piece of gauze between the sphincters.

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QUERY 5746.—"Furunculosis and Calcium Sulphide." S. S., Iowa, is treating a boy two years old with "boils on forehead and head." He is well nourished. The doctor wishes to know what dosage of calcium sulphide we would recommend.

In a case of furunculosis, we should suggest the use of calcium sulphide and the arsenates, preferably with nuclein. The boy may take 1-6 grain calcium sulphide every two hours and the arsenates of iron, quinine and strychnine after the two principal meals. Or you may give the nucleinated phosphates (iron, calcium, potassium and manganese) half an hour before food. Any child will take this tablet without objection. A few small doses of calomel followed by a laxative saline draught the next morning will also prove

beneficial. Be sure to keep the affected area thoroughly clean and evacuate each furuncle as soon as pus forms. Touch the cavity with a broom straw or toothpick dipped in pure carbolic acid, neutralize with alcohol, and then apply a little carbenzol ointment or resin ointment. Watch the child's diet carefully. It might be well also to examine his urine. He may be diabetic.

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QUERY 5747.—"Milium." C. L. J., Tennessee, has a lady patient who suffers with what he diagnosis as milium and has a muddy complexion. He desires to know what remedies are advisable.

Iridin and alnuin are both indicated in the case you so briefly describe. We should also be inclined to give calomel with podophyllin and bilein at 8 and 10 p. m. every other night for a week, and a laxative saline draught the next morning. Instruct the patient to take an epsom-salt sponge-bath two or three times a week (one ounce of the salt to two quarts of water). Diet carefully.

Milium, or strophulus albidus, presents small, pin-head to split-pea sized whitish or yellowish elevated papules, usually spherical in shape and slowly increasing in size up to a certain point. Diagnosis can be confirmed by incising a papula and making pressure, when, if you have to deal with milium, a small, white, round, oval or lobulated mass will be expressed. The lesions are commonly found below the eyes and on the border of the lips; they are also found on the genitals. Occasionally the mass undergoes calcarious degeneration, and cutaneous calculi are formed. Milia occur, as a rule, in infants or young adults. Sometimes they are congenital. Milia must be differentiated from xanthoma and molluscum.

Local treatment consists in incising the top of the papulæ and pressing out the contents; swab the cavity with pure carbolic acid, neutralize with alcohol in 30 seconds, then dress with a resin ointment. Electrolysis is recommended by many dermatologists as the speediest and best treatment. If for any reason these procedures are inadmissible, salicylic acid may be applied until the skin exfoliates. The milia will then be destroyed.

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QUERY 5748.—"Pityriasis Rosæ or Syphilitic Lichen?" I. D. R., Texas, requests suggestions as to diagnosis and treatment of a troublesome dermatosis. J. E. B., farmer, married, age 46, height 5 feet 6 inches, weight 140 pounds. Had scarlet-fever at three years of age and malarial fever at sixteen; gonorrhea at about twenty years of age. No other serious sickness until he contracted syphilis about two years ago, and for which he took "606" in February, 1911. However, neither the syphilis nor the injections had any effect on the present trouble. All symptoms of syphilis seemingly disappeared. Urine test shows: specific gravity, 1024; reaction, acid; albumin, none; sugar, none.

Present trouble: Ten years ago the skin on lobe of left ear thickened, turned red and began to itch. There was no moisture about it, but dry scales appeared from time to time. During the following winter it vanished, only to return the next spring, when it appeared on the cheek in front of the ear. This same thing has occurred every year since. Last winter, during the cold weather, it disappeared entirely, the skin becoming smooth and soft, with normal sensation.

At present there are a number of irregular spots on his face from the size of a five-cent piece to that of a silver dollar, one on the nose, where the skin is of a dark-red color, and which, when pinched, feels as thick as sole leather. No moisture appears at any time, but dry scales form over the thickened places. When the patient stays in the house or out of the sun and wind he does not notice it much, but when he is out during daytime he has to cover his face with cloths or else it burns and itches unbearably. If he is out more than usual through the day the burning and itching frequently keep him awake that night. The patient is not inclined to nervousness, but when his face is worse than usual or bothers him at night it makes him nervous and unfit for work. It seems worse when the weather is especially dry. Ointments and salves seem to have little if any effect.

Fowler's solution given to limit of tolerance has had no appreciable effect. Cloths wrung out of water, either hot or cold, alone give any noticeable relief.

We should like to have a blood-smear from this patient and scrapings from the affected area. The man may suffer from dermatitis psoriasiformis nodularis, parapsoriasis *en plaques*, or pityriasis rosæ. Lesions in the latter disease, however, rarely appear on the face. Itching is commonly an inconspicuous symptom. There is undoubtedly some underlying systemic disorder, and we should like to examine, not only the blood and scrapings, but also the urine. You do not say anything about the presence of indican and skatol, amount of urea excreted, etc. What is the character of the feces? It is just possible, of course, that you have to deal with a syphilitic lichen.

We should feel inclined to try a course of mercury alternated with calx iodata; iridin and rumicin would be useful adjuvants. Locally—after thoroughly cleaning the affected areas with tincture of green soap—apply thuja, 1 part; carbenzol, 2 parts; lanum, 2 parts; vaseline, 4 parts.

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QUERY 5749.—"Uncertain Diagnosis in Shoulder Injury." F. J. S., Oregon, was called to attend an unusually muscular and well-fed German laborer who fell and struck against an obstruction with his shoulder-tip. On stripping, it was seen that the elbow was held abducted three or four inches; the arm seemed long and the acromial end of the clavicle was humped up. On pressing the elbow up and the clavicle down, things would sort of grate and "click" together. There was no dislocation nor was the glenoid fractured downwards. Arm would drop and clavicle "hump up" on release of pressure. The end of the clavicle was free and torn from attachment. Two one-inch adhesive plasters were passed over the clavicle-tip and up and down upper arm, over the flexed elbow. These held thirgs. An axillary pad felt good, and support was given, as in clavicle fracture.

The doctor's query is, "What did I have?" He would like to know what could be done with a torn and dislocated clavicle. "The man needs his arm; but he's got something worse than a fractured clavicle."

We fear, Doctor, that you *did* have a dislocation of the humerus, the blow involving the acromion, tearing the coracohumeral ligament, and dislocating the head of the humerus. Under the circumstances we believe it would be impossible for you to obtain fixation of the acromion, and if the fragment is much depressed and has become at all fixed, as it probably has by this time, it would be impossible satisfactorily to reduce the dislocation. The neck of the scapula may have been fractured.

An open operation seems to us essential, and the plastic work to be done is extremely delicate. Under the circumstances, we should suggest that you send this man to a hospital, or should you be in a position to perform the operation yourself, be sure to secure counsel. It is well to take such precautions and thus prevent a possible suit for damages. In these days the physician is never sure which of his patients is going to turn against him.

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QUERY 5750.—"Supportive Splints." W. B. A., Texas, finds it necessary to construct a splint, or rather a support, for the body of a child, and is "up the tree" as to what to use for the purpose. He has tried plaster-paris but it proved too heavy.

We suggest that you use a starch cast or procure from some of the large surgical supply houses several sheets of plastic splint material. These sheets consist of a specially prepared fiber backed with felt. They are moistened and applied, while wet, to the portion of the body it is desired they should fit. They dry very rapidly, and, once dry, retain their form indefinitely.

We are not familiar enough with the conditions you have to contend with, to advise very intelligently, but a cuirass of this plastic material, reinforced with three or four turns of starch bandage would, we think, meet your requirements. Binder's felt also makes a satisfactory splint. This material can be obtained in sheets of different thicknesses. In molding a splint, roughly cut to desired shape and size, dip in boiling water, and allow to cool. Apply

to the part, cover with a layer of cotton batting and hold in place with a roll of bandage. In a few hours the splint will be hard and dry.

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QUERY 5751.—"Chronic Gonorrhea." A. O. S., Iowa, "would like some information on the treatment of chronic gonorrhea. The acute stage subsided in about four weeks and the patient improved. The discharge has lessened, but remains about the same. The patient complains of slight pain, during urination, about one-half inch from the meatus. There is no chordee, nor pain at any time. No cystitis. Health good. The amount of mucus is just enough to cover the glans, under the foreskin, every three or four hours. A microscopical examination reveals no gonococci.

Bear in mind always the necessity for instituting local and internal treatment conjointly; also vary the treatment to suit the conditions present in the individual. There can be no fixed treatment which will prove positively curative in *any* stages of *all* cases of gonorrhea. If the lacuna magna is infected or if the sinus pocularis or Cowper's glands have been invaded by the gonococcus, careful and prolonged medication is required. Sometimes eroded areas exist in the deep urethra and it is necessary to expose and treat them directly.

As you are aware, in "chronic gonorrhea" gonococci are not constantly present in the urethral discharge. The passage of sounds or the injection of a solution of silver nitrate or other irritant will, however, cause the Neisser bacillus to reappear.

You do not tell us just how long this patient has been infected; neither do you give us a clear enough idea of local conditions to enable us to prescribe positively. You might, however, irrigate the urethra with a solution of the sulphocarbolates, 5 grains to the ounce at first (gradually increasing to 10), following with injections of euarol into the deep urethra through a long-nozzled, hard-rubber uterine syringe or you may apply to the deep urethra, with a Williams or similar applicator, an ointment consisting of: methylene-blue, grs. 8; mercury bichloride, gr. 1; lanolin, oz. 1; petrolatum, ozs. 4.

Internally give hydrastin and some good antiblenorrhagic combination, keeping the bowels freely open with a saline laxative.

It might be well to have the prostatic discharge examined. Secure a specimen by massaging the gland through the rectal wall. If you have a urethral speculum, try to locate the lacuna magna; if infected, with a blunt hypodermic needle inject a few drops of hydrogen dioxide, wash out with boric-acid solution, and then pass a broom straw, which has been dipped in pure carbolic acid, into the lacuna. Neutralize with alcohol in one minute.

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QUERY 5752.—"Cardiac Epilepsy." W. T. H., Indiana, wishes to know how to make a differential diagnosis of cardiac epilepsy from petit-mal. He inquires what the "heart troubles are from which produce cardiac epilepsy," and what are the symptoms usually found in cardiac epilepsy.

It is incorrect to speak of "cardiac epilepsy." Idiopathic epilepsy is that form of the disease which cannot be accounted for either by organic disease, reflex irritation or morbid states of the blood. True epilepsy is never a sequence of cardiac disease, though naturally enough a serious cardiac lesion may exist in an epileptic individual, and heart complications are rather common.

Spratling, in commenting upon the undue proportion of functional and organic heart lesions encountered in 1070 cases of epilepsy, says: "We must not for a moment assume, however, that the epilepsy in these cases was *due* to the condition of the heart. On the contrary, in my opinion [in which the writer concurs] we may lay the cause of many of the heart troubles to the epileptic conditions, while in other instances they were present merely as coincidences. I believe that epileptics are unusually prone to diseases of the heart and lungs, and whoever has the opportunity of witnessing large numbers of epileptic seizures of a severe type—especially during the tonic stage—the stage of the single long contraction when respiration is suspended and the *heart under enormous strain*—will find himself wondering why more epileptics do not die during the seizure from the

forceful damming back of the blood upon the heart with consequent injury to that organ."

There *are* cases in which the heart lesion precedes and perhaps tends to cause epilepsy, but such cases are rare. Such instances occur late in life and are associated with atheromatous changes.

Of the 1070 patients observed by Spratling, 238 presented evidences of some form of heart disease or irregularity. Mitral regurgitation existed in 77; cardiac hypertrophy in 50; systolic murmur at apex in 10; mitral stenosis in 2; aortic regurgitation in 13. It will be readily seen that almost any heart trouble may be observed in the epileptic, but it would be practically impossible to prove that any cardiac lesion was in itself the cause of epilepsy, and we certainly cannot rationally speak of a "cardiac epilepsy."

If the theory advanced by Candler is correct (and extended experience and the results secured by treatment would prove it to be), any circulatory disorder would tend to produce systemic conditions rendering epileptic seizures possible, and a cardiac lesion might prove the irritative focus precipitating the explosion. Some writers (among them Balfour) state that diseases of the heart may cause pseudo-epileptiform attacks or spasms. English clinicians are inclined to associate the slow pulse and epilepsy, but here, again, the better-informed men regard the cardiac condition as an *effect*, and not the cause.

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QUERY 5753.—"Mercurial Rheumatism." W., Georgia, is treating a lady patient, sixty years of age, who suffers from "mercurial rheumatism." She states that taking large doses of calomel for an extended period has left her a rheumatic. She is not "bed-ridden", but up and about. The left shoulder-joint and adjacent muscles appear to be affected. Cramps in the leg-muscles often prove troublesome. The doctor has treated her for rheumatism, without the slightest improvement. He desires to know if mercury ever really causes "rheumatism."

There is no such disease as "mercurial rheumatism." It is true that some physicians claim that mercury in any form causes "pain in the joints," and any or all pains in the joints are, of course, "rheumatism" to them. The symptoms and treatment of mercurialism are undoubtedly known to you.

We question very much, however, whether the large doses of calomel have anything to do with the conditions present in the case under observation. The woman is probably autotoxemic. You are, of course, thoroughly familiar with the acidemic theory and the modern method of treating the underlying pathological conditions which almost always exist in "rheumatic" subjects. In order to treat this woman scientifically and secure definite results, you must have a clear conception of the underlying disorders. Make a careful examination of the woman and her excretions. With the light so gained it will be possible to institute a rational treatment.

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QUERY 5754.—"Calomel Incompatible with Ammonium Chloride." S., Arkansas, desires to know whether a poisonous compound is formed when calomel is given with ammonium chloride. Sometimes he wants to give the two drugs together in pneumonia, neuralgia or "biliousness."

According to some writers, calomel is incompatible with the chlorides of potassium and of sodium (see U. S. Disp.). It is soluble in most ammonia solutions, metallic mercury being precipitated in greater or less quantity, according to conditions. Left in contact with a solution of ammonium chloride, calomel is gradually converted into the corrosive mercuric chloride, which dissolves in the water. The decomposition occurs more rapidly with a concentrated solution and at an elevated temperature. The presence of peptic juices is said to favor the reaction. Hence in view of the uncertainty of the reaction, it hardly seems wise to give calomel and ammonium chloride conjointly, at least for more than a day or two.

The mild mercury chloride should be exhibited alone (or in conjunction with emetin, podophyllin, leptandrin, euonymin or other hepatic stimulants), and in *small* divided doses. It is best given in the evening. The other drugs should be exhibited for two or three hours.

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On Getting Up Tired, and the Value of Fresh Air

MADAME laments plaintively that she rises from bed as tired as she lay down; limbs aching, eyes bunged, face swollen with sleep. Ask her whether her room is ventilated, and she takes offense, quite as if you had suggested that she wash her face. But don't take it for granted that she knows what ventilation means—ten to one she doesn't. Inquire, and she will tell you she airs the room thoroughly, opening up the bedding, throwing windows wide and shutting the door, leaving things thus a whole hour. You suggest leaving the windows open at night, and at once you note on her face the transition from that "observance of hygiene that is a matter of course to intelligent people," and "one of that eccentric doctor's fads." She may be persuaded to leave the sash raised a half inch if the weather is not too cold, but women love warmth, and as winter nears they have the doors and windows weather-stripped and shut out every possible trickle of the life-giving oxygen; and shut in every particle of the emanations from the body, the deadliest poison existant, to be inhaled over and over again, until they rise, drugged, oppressed, entoxined, to begin the new day unrefreshed and deadly tired, as on all the days gone before.

Goes camping; sleeps in a tent where fresh air can't be entirely excluded. This same woman rises in the morning, to remark how perfectly delightful and invigorating is this air! Same old air she had in Chicago—not quite so pure, perhaps, 'cause there's decaying vegetation and camp-refuse round about.

The skin exhales so much poison that when, on one occasion, it was sealed by applying gold-leaf over the whole body, the child in question died, smothered. Nature provided for to-be-expected bumps and rubs by a continuous growth of epithelium to replace wear. We prevent the wear by the use of clothes, but the epithelial cover keeps forming, so that we must remove this by daily baths and vigorous rubbing with coarse towels. Neglect this, and the excretion cutaneous is impeded and self-poisoning results. The freshness and buoyancy following a morning bath is not all merely reactive.

The great body-sewer is the colon.

Here comes old Groucho—look out, fellows! Old curmudgeon scowling, face blotchy, mouth drawn down, eyes muddy,

ready to jump down your throat if you look at him; sure to find fault and only waiting for somebody to vent his ill-humor upon. Just apply the x-ray of knowledge, and you'll see tucked away in a side-pouch of his colon a couple of pounds of black, stinking stuff, with seeds of the grapes he ate last month embedded in it. Put it on the microscope, and note the billions of microbes swarming in it; the quantities of toxins they are generating; the absorption of these into the blood, which they traverse, bearing to every cell in his body a deadly poison that disorders their operation, weakens their resistance, and imparts to every functionating cell their perverse characteristics. The product of his think-works is tinctured by them; his emotions, his consciousness, his beliefs and ideas, his innate self take on the malefic impress.

Now just watch me prove this. I shall don the invisible cloak of Asmodeus, and when Groucho takes his evening meal I shall slip into his cocktail a little purgative vermuth that will kick up a row in his little insides. For relief, he will hie to the pharmacy and take a double dose of castor oil. In the night the oil, not of the best quality, gripes him; so he gets up and washes out the colon with a copious hot alkaline enema. The whole family becomes aware of it and the neighbors get up and close the windows. But, next morning the office is agog—"What's up with old Groucho! He beamed on us as he came in, cracked a joke with the office boy, who nearly fell dead, and he's actually singing! Why, one would almost believe Groucho was nearly human—if it should ever occur again."

Poor old Groucho! He has been so absorbed in his work that he has neglected to clean out the ashes, and his furnace is so clogged, the fire will hardly burn.

For the pessimism of Carlyle, the forebodings of Cassandra, the unbelief of Shaftesbury, and the hopelessness of Calvin there were reasons. Our thoughts and emotions, our creeds and affections take shape from our physical conditions and are tinctured by our self-engendered toxins. The joy of life lies in purity; and he or she who sees only to the cleanliness of the outside of the platter corporeal does but half the duty incumbent.

We need some one to believe in us—if we do well we want our work commended, our faith corroborated. The individual who thinks well of you, who keeps his mind on your good qualities, and does not look for flaws, is your friend. Who is my brother? I'll tell you: He is one who recognizes the good in me.

—Elbert Hubbard.

A SPARTAN SYSTEM OF HYGIENE

Radically differing from the plan of voluntary enrollment of patients by the physician of their choice, is that presented by Benjamin Moore, of Liverpool. He contemplates the organization of a Bureau of Health, the whole work of preventing disease and caring for the sick to be placed in the hands of the government, and the expenses defrayed by general taxation. Medical treatment would thereupon be free and compulsory. He is quite sanguine to believe that ten years of this system would rid the country of nearly all need for practicians as healers; medical officers being left free to devote themselves to educating the public in sanitation and its enforcement, with the abolition of infectious diseases. There would be work enough for the 32,000 medical men on the British register, whose labors at present are almost wasted because they are misdirected, owing to the present methods of attacking disease, which are medieval in their antiquity and ignorance. His plan comprises a system of state insurance against sickness, and he computes that the present cost would amply provide for the entire expense.

We trust the day is remote when such a plan could be adopted in free America; when the secrets of the sick-room now entrusted to the medical adviser in whom one places confidence should be made a matter of public record by a government official. We doubt whether there is a civilized land so official-ridden as to render this possible. Even in well-harnessed Germany the overwhelming flood of quacks shows the impulse of the individual to assert his right of choice of a medical adviser.

Curiously, *The Pasadena Times* takes our own editorial, advising level yearly payments to the physician of choice, he to assume the role of sanitary director and prevent disease as well as treat it; and against this *The Times* directs an outburst of indignation that would strike the bullseye were it aimed against Moore's plan. We suspect our esteemed lay contemporary got his files mixed, and affixed his diatribe against Moore to our own editorial. Certainly nothing in the latter so much as intimated governmental control or limitation of the individual in his choice of a physician.

Duty well done is noble—if properly advertised it is fame.—G. H. Lorimer.

THEY WOULD LEARN FROM US

The daily papers tell us that a party of more than three hundred leading physicians and scientists of Germany are chartering a steamship, to pay a visit to America next September. They are coming to study medical and social conditions. There is more than usual significance in this item. American medical and scientific men have long appreciated the fact that there is something for them to learn in Germany, well worth a visit, and this is shown by the constantly increasing resort to the great centers of German learning. That Germans should begin to appreciate that there is something on this side of the water worthy of their attention, is creditable to them, as showing that a portion, at least, of the German scientists are not restricted to the narrow limits of their own land altogether. The gentlemen will receive a hearty welcome, and every facility will be placed at their disposal for getting what is to be learned here.

ANTIMONY—A NEGLECTED REMEDY

The writer recently picked up Eustace Smith's little book on "Some Common Remedies" and was surprised and pleased to find a wealth of suggestions about a few of the older drugs. While the book is naturally characterized somewhat by British conservatism, there is nothing halting or uncertain about the author's views, which have been established by a very wide experience rather than by reference to authority.

The writer was particularly interested in the chapter on antimony. Here is an old drug by which our fathers set much store. It is a good drug, and it is to be regretted that its use has fallen into neglect. Following are some points which Dr. Smith makes concerning it—tartar emetic being the form of antimony with which we in America are most familiar.

In catarrhal states of the mucous membrane antimony is still a favorite remedy. It is *the* indicated remedy when we wish to unload the congested vessels and set up free secretion. As long as the cough is hard, secretion is to be encouraged, not checked. Ammonia, squill, paregoric, and other stimulating and antispasmodic drugs are contraindicated in the earlier stages of these catarrhs.

Here is a paragraph that sounds familiar: "Antimony is not given with any view to depressing the patient, and therefore it is advisable to prescribe it in small doses frequently repeated, rather than in larger doses given at longer intervals."

In these cases of acute bronchitis, Dr. Smith says, "When the distress is great, the breathing difficult, the coughing hacking and incessant, and the pulse small and feeble, the beneficial effects of the remedy are most decided, and it will be noted that the lividity and discomfort abate and the feeble pulse gets fuller and stronger as the secretion from the lungs gets more and more abundant and free."

In the early stages of bronchopneumonia in children the remedy is also of decided value, being most beneficial before large areas of lung are involved. It should be used at this stage with belladonna—or atropine.

Another disease in which tartar emetic is beneficial is stridulous laryngitis—catarrhal croup. To secure its full effect, give it in frequent doses, large enough to produce slight nausea. Hot fomentations to the throat are helpful. Useful only in the acute stage, when the temperature is

raised and the distress acute; at a later period, if the spasm persists, change to grindelia.

Dr. Smith reminds us that it is an established fact that all nauseating remedies, when given in minute doses, become gastric sedatives. A bullseye for our homeopathic brethren! One or two minims of wine of antimony is a good addition to the treatment in cases of gastric derangement.

Antimony is not without value as a hepatic stimulant. Moreover, by its influence in promoting secretion, it has an aperient action in chronic constipation. For this purpose it is combined with other remedies.

According to Dr. Smith, the drug is also of value in inflammatory diseases of the skin. In eczema, whether acute or chronic, it is one of the most satisfactory of remedies, provided it is used perseveringly.

Antimony is no longer used with the purpose of producing a profound sedative effect upon the vascular and muscular systems. Its most decided value is in promoting free secretion from the mucous surfaces and from the skin, and for these purposes, Dr. Smith declares, it still remains preeminent.

This old drug, like many others now neglected, will richly repay study, and a perusal of Dr. Smith's booklet will suggest other topics of equal interest.

Heads up! Look the world in the eye! Holmes says: "The men of genius, I fancy, must have erectile heads like the cobra de capello."

MEDICAL LATIN

In a discussion on puerperal eclampsia published in the journal of a certain state medical association, one physician during the discussion said that he had had several cases of "post mortem and ante mortem eclampsia." We wonder what the symptoms of the "post-mortem" eclampsia were. But we wonder still more that the editor could permit this lapsus to pass.

In the same journal we find that the doctor who read the paper on puerperal eclampsia made an examination per vaginum, and gave the patient not only several doses of eleterium, but also some "oil of tiglii."

Aside from these awful offenses against the ghosts of the Latin language, the proofreading of this journal is execrable. And, by the way, the same is true of several other state journals, whose editors show either a lamentable lack of education or inexcusable carelessness, or both—and yet these journals are supposed to reflect our science; to them we are to look for guidance.

CONTINUOUS BATHS

Ballano, last April, reported (*Giornale di Medicina Militari, The Military Surgeon*, July, 1911) a group of cases in which he considers that life or limb was saved by immersion of patients in a continuous bath of 4-percent chlorine water. These were cases of compound comminuted fractures, and the like, with phlegmon or gangrene. The advantages are very great. No occasional dressing can accomplish as much in the way of preventing and destroying infection. The temperature may be regulated so as to relieve pain and to sustain the vitality of parts threatened with death. The interference occasioned by handling and dressing is avoided. It is easy, cheap, and effective. The fever-temperature may be regulated by full baths, but also even by partial ones, as the blood cooled in one limb returns to moderate the general heat of the body. The advantages are not confined to military surgery, by any means.

Some years ago a patient came to me with a terrific fecal abscess, for which the surgeon (Dr. Bayard Holmes) made six incisions down the gluteal, perineal, and posterior thigh regions, each incision being from 12 to 17 inches in length. The tissues were infiltrated with fecal products to an extent for which the term frightful is not an exaggeration. As the only way to disinfect the man, he was put in a bathtub, with warm water containing a generous admixture of sodium sulphocarbolate. This was selected by reason of H. C. Wood's (Sr.) observation, that the flesh of animals that had taken sodium sulphocarbolate showed a remarkable immunity against

decomposition. An efficient antiseptic was required, one that would not by chemical action lessen the vitality of the tissues and increase the tendency to destruction. Contrary to everybody's expectation, the man recovered.

The mechanical difficulties in the way of applying a continuous antiseptic bath to a part of the body, as to a shoulder, are great; but in really desperate cases, there is no special harm in subjecting the entire body to the application of sulphocarbolate solutions, or even of chlorine water, perhaps. One must get out of the habit of associating the idea of antisepsis with such agents as mercuric chloride and phenol, which carry dangers of their own.

In treating morphine habitués, the writer has found that the period of discomfort may be rendered less irksome by putting the patient in a tub of warm water. The one thing such patients dread and complain of more than all else is the indescribable nervousness that comes on after the morphine has been stopped. In such a bath, the patient has neither pain nor ache, he sleeps sufficiently and eats full regular meals; and the man who has not been under the domination of the drug is apt to say, "What more can be asked?" But patients assure me that the nervous discomfort is such that any pain, however acute, would be a relief.

The exact application of certain remedies when exactly indicated—gelseminine, pilocarpine, physostigmine, cicutine, solanine, picrotoxin—goes very far to relieve this condition. Thorough and continued elimination does more—it goes very far in preventing it. Yet there seems to be, in some cases, an unresolved residuum of suffering that should be relieved.

The cold bath is great; and it is the exception when one does not realize such pleasant sensations from the first one that the attendant is not importuned to repeat it every hour or even oftener.

But to some, the hot bath brings more relief. The patient spends in the tub most of the forty-eight hours in which the "ordeal" is concentrated, with an attendant near to see that the patient's head does not slip under the water during sleep. I think the relief is due partly to the relaxation both of psychic and somatic tension, and partly to the elimination induced by the bath. At any rate, it is one of the many devices by which those who are experienced in the treatment of drug habitués may alleviate the suffering of the withdrawal-period and aid in the escape of the victim from his degrading bondage.

Say what you will about blowing one's own horn, a wise man always gets someone else to blow it for him. —"The Silent Partner." We are proud of "Clinical Medicine," and *you* like it. Please toot a little for us—we're out of breath.

WHERE IS OUR FIGHTING SPIRIT?

There is much just complaint by physicians because our profession is ignored, abused and discriminated against. Sometime we shall wake up to the fact that these constant attacks upon us are, in part, because we are too meek to fight our own battles. A beautiful illustration of this fact has just come to my attention.

At the request of the Columbus (Ohio) Board of Education, an open meeting was held in that city, attended by more than two hundred people, to discuss the proposed plan for the medical inspection of the local public schools. Practically every member of the Board was present.

The audience was composed largely, it seems, of Christian scientists, "new-thought" advocates, and avowed irregulars, among them the former editor of *Medical Talk*, principally famous for its denunciation of the physician, drugs and vaccination, and its advocacy and defense of the many absurd healing fads. The latter spoke at some length and, with other speakers, denounced the medical profession, shaking that terrible bug-a-boo, "the medical trust," before the faces of the audience and predicting the downfall of "our liberties," in case physicians should be employed in the Columbus schools, to keep them free from disease and to detect the presence of physical defects in children. The physical needs of the children were not, apparently, of great interest to the speakers.

The most significant part of the newspaper report was the statement that

"*practising physicians took no part in the discussion.*" Isn't it pretty nearly time that our medical organizations, if they are good for anything, should interest themselves in the public welfare, and also in the protection of their own professional interests, which is being imperiled at almost every point and practically without protest on our part? It would seem that when an opportunity like this arose, when the work of the profession could be set forth in plain, straightforward language, its essentially disinterested character made plain, and what it means for life and for death and for the welfare of society, emphasized in a manner that would fix it forever in the minds of hearers, thus nullifying the stultifying pretense of our detractors, there would be dozens of the ablest men of the profession on hand demanding a hearing.

If we have become so "ethical," so good, that we are afraid to fight in the open, for fear of being accused of "advertising," by our lady-like professional associates, then we deserve what is coming to us, should turn the health boards over to the Christian scientists, quit practice, and devote ourselves to solitaire.

Be a good listener. It is better to say too little than too much. We can always learn by listening, while we do not always teach by talking.

THE CAUSE OF LAZINESS

I'm lazy this morning. I rose at 5 o'clock, had my cold plunge, my coffee, and came to the office this cool October morning ready to make things hum—and there are things that need to hum—but I just can't. I sit here idly, helplessly looking at my basket full of delayed work, that has been waiting until I felt up to doing it well enough. I feel like the man who has reached his thirtieth quail a day.

It isn't brain-fag, for I have just come back from a week at my beloved Michigan shore-country outing place, where I sawed and chopped wood to my heart's content and enjoyed the lake breezes and the solitude thoroughly. True, I completed the book there and did the biggest week's work of years with pen, but that is incidental.

Is it age? Sixty-two years surely mean something, and I find myself assuring friends that I "feel young"—disastrous token, the wish fathering the thought. But a man without a trace of old disease or degeneration, alcohol, tobacco or any of the results of dissipation, eating to live, is not old at sixty-two. Syphilis, gonorrhea, malaria are concomitant causes in the genesis of true, physiologic or pathologic age, rather than years.

Metchnikoff says age begins in that relic of a past stage of pre-development, the colon. A strain of fecal toxins in the blood arouses in the tissues those alterations we term degenerations, and these collectively constitute real age. For many years the morning "teaspoonful of saline laxative in a glass of cold water" has not failed to secure a free passage, and the dose has not required an increase. But of late there are signs of insufficiency in wholly emptying the bowel and a few warm alkaline enemas disclose an unsuspected collection in the large bowel. Remove this, and the laziness vanishes; and there comes a delightful sense of freshness, vigor, youth, fitness, a veritable hunger for work and effort that is an amazing change from the conditions preceding.

Laziness is more often autotoxemia than anything else, and we are justified in that diagnosis until some other is apparent.

What timorous rabbits are these our surgeons, that they do not remove the colon and put a radical stop to this evil. Why stop at the appendix? If it is merely a dangerous relic of the past, so is the colon a far more dangerous one.

Deficiency in the eliminative work of the kidneys is another common source of inertness. See if there be a commencing nephritis; or, especially, defective elimination of urinary solids.

Bad habits of feeding are often responsible. Too much meat and other nitrogenous foods, too much coffee, too little water, too little exercise to insure proper digestion; or, on the other hand, too little nutrition and too much reliance on the advertiser who has cunning substitutes for foods

to sell; these be our sources of inertia. Many times this has been dissipated by a square meal, enjoyed despite the fearsome consequences apprehended.

Lead poisoning? Once upon a time a shrewd observer found that the prettily tinted buns exposed in the bakers' windows were colored with lead chromate, and many obscure cases of ill-health were thereby cleared up. Then the matter was forgotten; and beyond a doubt the same old coloring is now employed. Lead has many ways of getting into the food. Arsenic gets into the body in still more unsuspected ways—wall-paper, curtains, fabrics innumerable, whose lovely tints depend on this dangerous element.

These are not all the physical causes that may underlie laziness. In the South the hookworm is held responsible. There may be other "bugs" that the future may discover sapping the mental and physical energies. But after allowing for all known and possible causes for the ailment, is there still an unresolvable residue, a modicum of true essential laziness for which no adequate cause exists, but which is innate to the affected individual?

It would seem like asserting that an effect can exist without a cause; yet it is really only stating that the cause is unknown or that it is so connected with the life-processes as to be physiologic rather than pathologic. Some philosophic observer asserts that every man is as lazy as he dares be. I agree with him. I know I am.

Laziness is quite frequently a habit. I come home, have my dinner, and take up a novel or a magazine. There are some of the late textbooks and monographs, and I might as well read them and thus aid in keeping myself *en rapport* with recent progress; but I fall readily into the habit of light reading. It is just habit, for if I eschew this sort of dissipation and take an hour of solid reading I soon get into the swing of it and do not care for the other. Habit leads one to dawdle over the morning paper an hour instead of glancing through the summary and scanning it on the way down to the office, which is all it deserves from a busy man. Habit wastes many a minute, and quarter-hour, and evening, and day. There is a habit of time-wasting that goes for, and is, laziness.

Not that all time spent away from work is wasted or proof of laziness. There once arose a new word—rizzling. People asked, "Do you rizzle?" Coming home to lunch, you throw yourself on the sofa and close your eyes for five or ten minutes, not asleep, but relaxed and quiet—that's rizzling. It is useful and refreshing.

Brain-fag is another story. Despite your determination, the work grows irksome, and it is simply impossible to drive yourself to it. "You may lead the horse to the water, but you can not make him drink." So you take a week and hie you to the woods, where with rod or gun you get back to nature, and fill up with ozone and empty your soul of meanness. Then you return to the desk and make things fairly fly—ideas just scintillate, problems solve themselves in the stating, difficulties subside, accomplishment follows the whole-souled effort you put into your work.

How about the time when the week proves too short and the expected reaction fails to put in an appearance? Is this a warning? There's an old tale:

Once upon a time Death came and touched the man's arm. "Come," said Death. But the man plead for delay, so pitifully that Death relented and not only gave him more time, but promised him three warnings. In due time Death returned and called the man. Again he plead for longer life, and yet more time, and complained that he had not had the three warnings promised, asking Death to take pity on one for whom life was all. But Death responded that he must have many pleasant things to enjoy. He eagerly denied this, saying that his sight was so poor, his hearing so defective, and his rheumatism so tormenting that life was not enjoyable. "And yet," said Death sternly, "you deny that you have received your three warnings!"

But there are two sides to this matter also. It is easy to say, take the warning and quit work; but we know that the man who stops the work of his life does not

usually live long. Many a man has gone on so long that he is like the old cart-horse who is held up by the shafts. Streeter, who wrote so charmingly of "The Fat of the Land," did not live many years to enjoy his farm. But he carried it on with the same high pressure he had put into his professional work, instead of making it a healthful recreation. There is a scientific way of resting that one should study.

Resting will not in itself confer immortality or postpone death forever. Men seek to sustain themselves by every sort of artificial expedients, calling recklessly on their reserves of vitality until all have been exhausted, and then demand of Rest its miracles. In the treatment of the insane we found that when a man had thus sustained his waning powers on alcohol and other stimulants his case was hopeless, as the reserve upon which recuperation might have been built had been exhausted.

When a man begins to feel it necessary to keep himself up to the mark with alcohol, strychnine or any other abnormal agency, then is the time to rest. If a week's rest proves insufficient, take a month; and if that is not enough, rest until you are fully rested.

What success is worth death? or mental failure? Ten years of enjoyable life can not be purchased with millions; and yet many a man dissipates that much time in trying to win a little more that he can do without with very well.

LABORATORY AND BEDSIDE DIAGNOSIS

Dr. Beverly Robinson of New York pronounces a timely warning, in *The Medical Times* for February, against excessive importance being laid upon laboratory methods, to the neglect or exclusion of careful bedside observation. The former methods are usually designated as "scientific," as against the "practical," or empirical, methods hitherto and even at this day employed by the majority of practicians.

"Unfortunately," the doctor says, "even socalled science is ephemeral at best, and what is seemingly true today is not true tomorrow. On the other hand," he continues, "what is known as empirical is not infrequently the wisdom of the ages and of a host of good observers everywhere. It remains true that the wisdom and horse sense of the old practician is frequently more valuable really to patients than the most refined and latest acquisition of the junior physician, even though his talents may be unquestioned."

We do not wish to be understood as decrying in the least the advantages of exact laboratory methods in the diagnosis of disease, but it is, nevertheless, a fact, and has been frequently called attention to, even in "scientific" Germany, that an improperly exclusive devotion to scientific methods, so called, is exceedingly apt to leave out of consideration the practical and curative management of the pathologic conditions confronting us, and which, after all, are the main reason of our services being required.

Our patients, be it remembered, do not care how a tubercle bacillus or a staphylococcus or a plasmodium malariæ looks; what they want is to get well of their disease, to be restored to health and active life. For that reason, it behooves us not to lay undue stress upon the scientific determination of the exact conditions present, and then lie back in smug satisfaction over a hard task accomplished, but to remember that an exact diagnosis made, our most important task has only begun, namely, that of leading our patients back to health. It is true that in this very purpose the despised "empirical" methods of our predecessors frequently are of greater value than scientific modes of treatment, that is, if based on ill-understood or misapplied theories; or if, as is the case only too frequently, they are the fad of the day.

Further, Dr. Robinson says: "We have only just so many reliable remedies in the drug-line, and they are not many; and as to nursing in a rational and useful way or the employment of physical methods of amelioration, they, the really useful ones, are fairly well understood by the bulk of good practicians of experience."

This latter statement we would emphasize a little more strongly, and, with all defer-

ence to Dr. Robinson's experience and knowledge, we should assert that, after all, there are a good many reliable drugs at our disposal, everyone of which has its different and distinct mode of action upon the organism, the indications for the use of which can very well be determined by the observing and conscientious physician.

In spite of the emphasis laid upon the importance of exact methods of diagnosis, we should lay the much greater stress upon the importance of exact, positive and definite treatment. A correct diagnosis is necessary—most true; but after the diagnosis is made, then it must be acted upon, and must be utilized, not as the final end of our task, but as the means to the actual end aimed at.

And do not pause to lay sufficient stress
Upon that good, strong, true word, Earnestness.
In our impetuous haste, could we but know
Its full, deep meaning, its vast import, oh,
Then might we grasp the secret of success.
—Ella Wheeler Wilcox.

DR. ALEXANDER HUGH FERGUSON

In the November number of CLINICAL MEDICINE, we announced, very briefly, the death of Dr. Alexander Hugh Ferguson, which occurred late in October. Dr. Ferguson was one of the most distinguished surgeons in Chicago and one of the best-known men of our profession in the United States, although he was a Canadian.

He was born in Ontario County, Ontario, February 27, 1853. He was graduated from the Medical Department of the University of Toronto in 1881. After a year spent in visiting the leading hospitals in the United States, England, and Germany, he began practice in Winnipeg in 1882. While residing in that city, he was one of the founders of the Manitoba Medical College in which he was professor of physiology and histology. He was also a member of the staff of the Winnipeg Hospital and connected with other local institutions.

In 1891 he came to Chicago at the invitation of the staff of the Post-Graduate School and Hospital where he was appointed professor of clinical surgery. He immediately took a leading place among the surgeons of this city, holding a chair in the Medical Department of the University of Illinois, becoming head surgeon of the Cook County Hospital, and surgeon-in-chief of the Chicago Hospital, the majority of the stock of which he controlled. About two years ago, Dr. Ferguson disposed of his interest in this latter institution. A year later he was elected president of the Chicago Medical Society.

Some weeks before his death, he was attacked by a carbuncle on the back. This refused to yield to treatment and resulted in general infection, complicated by an attack of pneumonia, and later, peritonitis.

Dr. Ferguson was the "canny Scot," through and through; careful, shrewd, witty; always friendly to everyone, but always judicial. His contributions to surgical science were many and need not be catalogued here, but his unusual ability was shown by the remarkable rapidity with which he established himself in a place of the first professional eminence.

At a time when the Chicago Medical Society was divided by bitter strife, he did not fear to ally himself with what seemed to be the weaker side, with those of the rank and file of the profession. It was upon this platform of real medical democracy that he was elected to the presidency of the Chicago Medical Society.

Dr. Ferguson was a strong man and will be greatly missed. We were proud to count him among our personal friends, and as such we loved and admired him.

DUTY VERSUS POPULARITY: THE CASE OF DR. WOODLING

A rising young physician of far more than average ability was asked why he did not openly favor the active-principle methods, since he knew very well their superiority. He replied that "he found it the best policy to follow the line of least resistance." Had the heroic souls whose achievements stand out as beacon-lights in history for the emulation of the young followed the line of "policy," what would be the condition of humanity today?

Nevertheless as to most of the questions, there are two sides, even to that of the union of heroism with policy. The hero is not necessarily devoid of brains, and may utilize them in his battle.

When the Tennessee came out to attack Farragut's fleet in Mobile Bay, the commander of one of the most formidable vessels in the federal fleet, a double-turreted monitor, ordered that his ship be sent directly at it, regardless of every other consideration. His vessel ran upon a torpedo and was destroyed with all on board. The commander of a much smaller vessel took up his station on the quarter of the ironclad, and persistently drove the shells from his eleven-inch smoothbore cannon into the stern of the Tennessee until he succeeded in jamming her rudder-chains, which rendered her incapable of steerage and won the fight. Who was the hero?

We have a communication before us from Dr. M. E. Woodling, of Las Vegas, New Mexico, telling his remarkable story. It seems that an epidemic of scarlet-fever broke out in that city. Dr. Woodling called upon the authorities to take proper measures for the eradication of the disease, by quarantine and hygienic attention to the infected district. The business interests of the town, however, considered themselves endangered if scarlet-fever should be officially proclaimed as prevalent in the city; and Dr. Woodling's proposition seems to have aroused an animosity never equaled excepting in cases where the financial nerve is wounded. The municipal government, courts, and general public seem to have united in an effort to punish Dr. Woodling for the determined stand he took in the matter. However, in the end they were compelled by the state of the epidemic to come to his position and do what, if it had been done at the time he urged it, would have saved valuable lives.

For his action in this matter, Dr. Woodling seems to have incurred the animosity of the community.

It may be recollected that a similar condition of affairs existed in San Francisco at the time the plague invaded that city, and that nothing but the firm stand taken by the medical officers of the United States Marine Hospital and Public Health Corps, with the backing they received from the Department at Washington, compelled the official recognition of the pest and efforts for its extermination.

Here is precisely one of those cases where duty and policy clash, and where the physician is called upon to make that old choice between the right and the wrong. It depends on one's sense of obligation to duty or of obligation to self-interest which he will choose. But, having made the choice, as Dr. Woodling has done, and finding himself isolated from the community in consequence, where is the remedy? He has tried the courts and they have failed him. Public sentiment seems to be so overwhelmingly against him that no redress could be found, although his case as presented by himself seems to be a clear one.

Under the circumstances, we see but one remedy: that he find a community where independence, professional competence and devotion to duty, even to the extent of the sacrifice of income, home, and self, may be appreciated. Unfortunately Dr. Woodling seems to have allowed his indignation to get the better of him and to have lost his temper. This has detracted from the strength of his position, for calling names is no argument, even though one may be justified by the facts of the case.

This emphasizes our impression as to the only course open to him. No man can hope to succeed who is out of harmony with the public sentiment of his community, be it right or wrong. Moreover, it is not good for a man himself to reside in a community whose views are hostile to his own.

I well remember the case of a young physician, many years ago, whom I found residing in a country community of a strongly old-fashioned "orthodox" religious belief. The doctor had, unfortunately for his interest, imbibed different views on theologic matters, and as a consequence was practically an outcast, shunned by everybody except in case of dire necessity. By my advice, he removed to a larger

community in which he found association, the members of which shared his own views. The difference in the man himself, when, no longer an outcast, he found himself one of many congenial companions, made an impression upon me which time has not effaced. "It is not good for man to live alone."

Dr. Woodling should move to another community, where, by judicious use of his experience in Las Vegas, he should secure such an introduction as would render his success certain. Go into a city as a sanitarian, boldly and openly proclaim your principles, and call upon the people to pay attention to the sanitation of the town before any epidemic disease is prevalent. Preach prevention. Preach it from the house-tops, in conversation, in public lectures if you can hire a hall and induce an audience to attend it, and in the newspapers. This will antagonize nobody and establish your reputation as a modern, scientific, progressive physician, devoted to that idea which everybody believes in, the scientific prevention of disease.

Do not try to live forever; you will not succeed. Use your health, even to the point of wearing it out; that is what health is for. Spend all you have before you die, and do not deceive yourself.—Bernard Shaw.

Which is good and bad. Use your health—and you shall grow stronger; but do not spend it. We need exercise of health, mind and money—but God save us from the exhaustion of any one of the three.

LET THE SPECIALISTS "KEEP UP"

Every once in a while we get a letter from some good doctor who tells us that he no longer needs CLINICAL MEDICINE because he is entering the field of specialism. He feels he needs to use all his available time in the study of the subjects peculiar to his chosen field; this, in itself, is so vast that he must concentrate upon it.

This is all right so far as it goes (we believe in concentration), but too often the specialist fails to remember that the human body is a unit, after all, and that any ailment of one part may react upon many other parts. The most successful specialist is the one who recognizes this fact, and is prepared to diagnose, and, if necessary, treat any condition that may arise, however remote from the organs of his special interest.

Of course the specialist cannot follow out all the infinite lines of research—all the new discoveries; or keep in touch with all the new operations: but he certainly can seek to know what is going on in the field of general medicine. The vital principles, the underlying hypotheses which determine medical thought, are stated, simplified and explained by the general medical publications. Therefore, his reading should include not simply specialty journals and specialty books, but at least one or two of the general organs which will keep him advised of medical progress all along the line and prevent him from losing touch with the vast field of medicine with which, as a general practician, he was, of course, familiar.

There is even more danger of the specialist falling behind the procession than the general practician, who is forced to know something about practically all branches of medical knowledge, even though he may not have obtained the mastery of any particular field. In other words, there is the danger of the specialist becoming *narrow*.

So, we say to our specialist friend who is inclined to cut off the general journal—*don't do it*. You may not need a long list of journals, but you should have at your desk one or two of the best weeklies and the two or three best monthlies—among them, CLINICAL MEDICINE. Through these you will be advised, not only of the work of medicine, but of its humanities—which are, after all, of vital concern to every doctor, whatever the special character of his work.

NAGGING WIVES AND NEURASTHENIC HUSBANDS

Two recent suicides have illustrated a much ignored yet most important sociologic factor with which general practitioners, neurologists, and genitourinary surgeons are forced to deal. To all three of these classes of physicians the neurasthenics, neurotics, and neuropathics apply for care and comfort, and to all of them a serious

element in the problem is that of the nagging wife or husband. This is a very old problem. In the Shakespearan epoch, when a revolt from occultism voiced itself in Dr. Reginald Scott's "Discovery of Witchcraft" and in Harsnett's "Detection of Religious Impostors," the problem found utterance in "The Comedy of Errors." The shrewish wife of Antipholus of Ephesus admits her fault through the keen questioning of the Abbess in whose cloister the Syracusan Antipholus has taken refuge.

ABBESS: You should for that have reprehended him.
ADRIANA: Why, so I did.
ABBESS: Ay, but not rough enough.
ADRIANA: So roughly as my modesty would let me.
ABBESS: Haply in private.
ADRIANA: And in assemblies too.
ABBESS: Ay, but not enough.
ADRIANA: It was the copy of our conference;
In bed he slept not for my urging it;
At board he ate not for my urging it;
Alone, it was the subject of my theme;
In company, I often glanced at it;
Still did I tell him it was vile and bad.
ABBESS: And therefore came it that the man was mad.
The venom clamors of a jealous woman,
Poison more deadly than a mad dog's tooth.
It seems his sleep was hindred by thy railing,
And therefore comes it that his head is light.
Thou say'st his meat was sauced with thy upbraidings.
Unquiet meals make ill digestions,
Whereof the raging fire of fever breed.
And what's a fever but a fit of madness?
Thou say'st his sports were hindered by thy brawls.
Sweet recreation barred, what doth ensue
But moody and dull melancholy,
Kinsman to grim and comfortless despair?
And at her heels a huge infectious troop
Of pale distemperatures and foes who
In food, in sport and life preserving rest
To be disturbed would mad or man or beast.

The soundness of the psychophysiology of the Abbess is quite clear. The toxemic elements resultant on nagging are not neglected. The lesson is one which today we could well heed. The great foe to mental and physical health in the neurasthenic is introspection, which directly causes depression and doubt of mental peace and indirectly aggravates these through creating a vicious circle by inhibiting the poison-destroying function of the liver and the eliminatory power of the kidney.

The case is the worse, as nagging is most often the result of acquired or inherited defect of the higher inhibition on action, and causes an intellectual sense of fatigue or prevents primary egotism rising into consciousness. This evil is increased by the tendency of the neuropathics to intermarry. As W. L. Bannister de Monteyel and others have shown, this is peculiarly great. It lies behind the notoriously great neuropathy of the Jews.

Nagging, as an expression of incompatibility, is a frequent factor in divorce assigned to other causes, under varying names, according to local statutes. Many suicides of husbands during the first year of marriage are due to a feeling of mental impotence aggravated by nagging. As the researches of the Feudists have shown, sexual "knowledge" of a disturbed variety is very frequent in female neuropaths. This "knowledge", like that of the "lost-manhood" quacks, is used freely on the unfortunate marital victim of the neuropath vampire.

MUSHROOMS AS CHEAP FOOD

The increased cost of living! Everybody bewails it. Meat, eggs, milk, sugar, flour, every article by which life can be sustained is being pushed up, until people are paying "all the traffic will bear;" and still the greed of suppliers is unsated.

Meanwhile crime increases on all sides. Burglary, robbery, theft, cheating, murder, every species of guile by which money can be gotten without work becomes more frequent.

The Report of the Chicago vice commission places the blame for women's fall upon the inadequacy of wages to provide for necessities. As surely as the sun rises and sets, so surely will an increase in the cost of living impel men and women to disregard law and to step across the invisible line that separates morality and respectability from sin and shame. Make the loaf dear, and you make thieves; skimp the employee, and you make an embezzler. The more difficult to earn a living seems, the more alluring the ways of vice, and the easier it becomes to slip down into the underworld.

Men begin to calculate diet tables, to measure the nutritive values of food against wages, to think less of sapids and more of calories. Life grows harder, the struggle for existence sterner as the earth becomes crowded.

Meanwhile bounteous nature spreads for us, in every forest dell, on every lawn and pasture field a wealth of wholesome and delicious viands which we pass by unnoting or crush under our heel ruthlessly. Of the six thousand fungi of the United States, three are poisonous, further three unwholesome, but the larger number of the rest afford as appetizing and nutritious food as man could ask. In the shops, cultivated mushrooms bring from fifty cents to a dollar a pound. Many of the wild ones are finer flavored, and are to be had for the gathering. In the city of Chicago alone fifty thousand persons could dine daily on this food for the gourmand without exhausting the supply to be gathered within the municipal limits. Ignorance is costly!

In New York City it is reported that thirty persons have died this summer from eating poisonous mushrooms, gathered with the wholesome varieties.

Truly, ignorance is costly!

Six bad varieties of the mushroom family prevent the utilization of six thousand good ones—and yet, it is easy to distinguish the poisonous kinds, nor difficult to identify the others. The trouble is that the works treating of the fungi are rare and costly, hence not to be found outside of libraries.

Here is a field for public intervention, and some of the states have recognized this. The state of New York has published a volume, beautifully illustrated, describing the fungi found growing within its territory. Mr. T. C. Clements, State Botanist of Minnesota, has issued the fourth volume of "Minnesota Plant Studies," which deals with the mushrooms of that state. He describes over three hundred varieties. The three deadly amanitas (phalloid, vernal, and fly) are figured and described, so that they could not fail to be recognized by any person of average intelligence. Several others are listed as unwholesome, others as doubtful, many as unfit for food for various reasons, or untried; but a surprising number are pronounced "edible," "excellent," or "delicious." A chapter is added on the manner of collection, together with various methods of cooking the different edible sorts. Any family possessing and utilizing this book may have, for the slight trouble of collecting, a daily meal of this, one of the costliest dishes set before the epicure.

If you like mushrooms or feel willing to enjoy a wholesome delectable dish for the trouble of picking it up, get a book on fungi like the one named. Gather all the mushrooms you find, putting each variety in a separate paper bag. Do not take any old ones, but be sure to dig out the whole stem, so that the variety may be recognized.

The three poisonous fungi are all amanitas. These have a centrally inserted stem, the top separating readily; around the stem is a ring or collar, and the base of the stem is bulbous and surrounded by a volva, or onion-like scaly sheath. Place a ripe specimen on a sheet of colored or black paper and shake it, when the spores falling out are seen to be white. Other wholesome mushrooms have the ring or the volva, but no others have both and also the white spores, as is true of the three deadly amanitas.

The amanita phalloides, or death-cup, is 1½ x 4 inches wide, white (rarely olive, brown or yellow), shiny when moist, smooth or rough with fragments of the volva; stem, 3 to 6 inches long, 1-3 to 1-2 inch thick, white, rarely dark, smooth, bulbous, and hollow above the ring close to the cap. The volva may be overlooked if covered with dirt. The deadly amanita grows in the woods from June till October. It contains two poisons, phallin and muscarine.

Phallin is a hemolysin, causing solution of the blood-corpuscles, like snake venoms. It is destroyed by cooking it thoroughly. There is no known antidote, although recent observations indicate that arsenic has some antihemolytic power.

Muscarine is an alkaloid that causes sweating, purging and vomiting, with de-

pression. It is antidoted completely by atropine. If one eats only cooked mushrooms he is safe from phallin, and cannot die from muscarine if he takes enough atropine to keep his mouth dry.

The amanita verna is a variety of the phalloid, and equally deadly.

The amanita muscaria, or fly-cap, is 4 to 6 inches wide, bright-red, or orange, yellow or whitish when old; the top is rough with corky fragments of the volva, which in the early form envelops the whole plant. These fragments may disappear as the fungus ages. The margin is striate, the stem thick, 3 to 6 inches long, white, scaly, bulbous, hollow, the ring large, the volva forming concentric scaly rings on the bulb. It grows in the woods and clearings till frost. It contains only muscarine—no phallin—hence can be antidoted by atropine.

These are the three deadly mushrooms, or socalled "toadstools." Learn to recognize them, even in forms varying from the typical dimensions, but with the ring, volva, and white spores—the three characteristics of the amanitas.

Of the others, Clements pronounces 125 varieties edible, 54 excellent, 24 delicious, 16 doubtful, 10 distasteful, 3 unwholesome, 1 pleasant, and 21 not tested.

Surely, such a wealth of food-resources should not be allowed to go to waste. There is no danger so long as one adheres to the one safe rule of eating no fungus until he has first identified it botanically.

However, to know that a given mushroom is not one of the three deadly amanitas is not enough, since several others are poisonous to some persons. *Old, decayed, wormy mushrooms or those gathered the day before may be unwholesome.* Many varieties are only of value when quite young, as the puff-balls, which should not be eaten after they turn yellow and wrinkle.

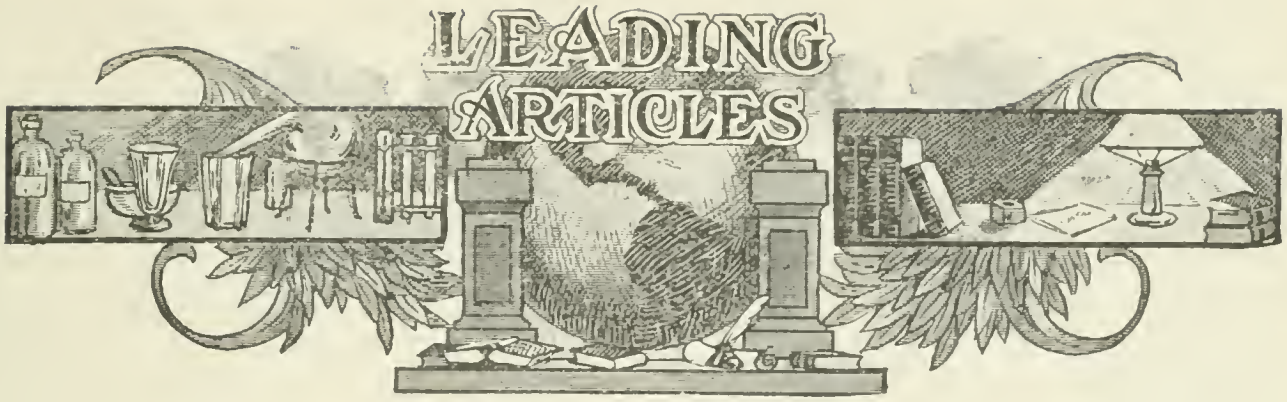
The most common mushroom of the Chicago lawns is the hypholoma. It is exceedingly fragile, and decays before its first day of life has ended. It is wholesome, nutritious, and of pleasant flavor, some would say "excellent," but hardly "delicious." The writer and his family use it as any other vegetable, and have consumed bushels of it. The horse-tail coprinus (coprinus comatus) is sometimes found, and fully merits the term delicious. The russulas seem to be doubtful, being unwholesome at some seasons,. to some persons or under some conditions, but not under others. An enormous mushroom, as large as a dinner plate and weighing several pounds did not answer the description of any variety listed, but proved to be poisonous—probably a fly-amanita.

STATISTICS

A correspondent writes to inquire if we can give statistics as to the results from the active-principle method of treating such diseases as pneumonia and typhoid fever, compared with the usual methods described in the textbooks.

Among the readers of Clinical Medicine we know there must be hundreds who keep accurate records of their cases, and who can give us these reports. Will not every one who has such a record send it to us, covering if possible the period before he began the use of the active-principle remedies and since he has used them? These reports should not only tell the number of cases, the duration of each case, the outcome, the complications, and the treatment, but also whether the diagnosis was verified by laboratory methods or not.

We urge everyone who does not keep a record of his cases to begin. The pneumonia season is here, and there are few men who read this issue of Clinical Medicine who will not have seen a number of cases of this disease before spring comes. Please record these and report them. These reports need not be written out in the form of articles, but may be jotted down briefly on single sheets, if so desired. We ask everyone to give this matter personal attention. Statistics, to be worth while, must be complete, and they must cover a sufficiently large number of cases to make the results reported convincing. We do not want these figures to convince ourselves of the superiority of positive therapeutic methods. We know. But there are thousands of physicians who need evidence which cannot be gainsaid. Will you help us furnish it?



Ulceration of the Stomach

By JOHN DILL ROBERTSON, M. D., Chicago, Illinois
President and Professor of Surgery, Bennett Medical College

EDITORIAL NOTE.—This paper, which deals with the subject of gastric ulcer from the surgical point of view, was promised last month. It should be read in connection with the paper by Dr. Boardman Reed, in the November issue of "Clinical Medicine."

THE stomach may be the seat of various forms of ulceration. The specific ulcerations include the tuberculous, typhoidal, syphilitic, and actinomycotic ulcers.

The Various Forms of Gastric Ulceration

The *tuberculous* ulcer is irregular both in its appearance and outline and is very commonly multiple. Very rarely a *typhoid* ulcer will develop in the stomach as in the bowel. This closely simulates a peptic ulcer, but is more irregular, and develops in the course of the second or third week of typhoid fever.

Gummatous ulcer of the stomach is not so rare as was formerly supposed. There may be multiple minute ulcerations of the wall which partakes of the characteristic of the gummatous ulcer elsewhere—a deep circular ulcer with undermined edges and an irregular sloughing floor. It is very commonly followed by cicatrical contraction. It is not infrequently accompanied by hemorrhage. It responds readily to the usual antisyphilitic treatment.

Only very rarely *actinomycotic* ulceration of the stomach will be encountered. It is characterized by the usual tumorous formation in the gastric wall, followed by ulceration and sinuous tracts. The ulcer has thin, nonindurated undermined edges, and its floor is covered with edematous granulations which contain the pus and the characteristic sulphur-yellow bodies composed of the ray-fungus.

The usual form of gastric ulcer is the *nonspecific round*, or *peptic*, ulcer, also known as the *chronic*, or *perforating*, ulcer, or the *ulcus ex digestione*. This is a round or oval penetrating ulcer of the gastric wall, of indefinite etiology and tending to run a chronic course. It is not a very rare condition, since statistical records of postmortem examinations show that of persons dying from all causes, 1.4 percent show ulcer, while 3.1 percent show the cicatrices of ulcers that have healed.

Etiology

There are certain causes which predispose to the development of gastric ulcer. Among these are sex, it being vastly more common in young women than in men. The usual age is between 20 and 30 for women and 40 for men. Race does not seem to exert much influence on the disease, although it is curious to note that the Japanese seem to be exempt. It is probable that depressing influences, such as that consequent upon prolonged mental anxiety, and the presence of chlorisis and other anemias which produce a marked destruction of the red blood-corpuscles, associated

with hyperchlorhydria, may be responsible for the development of the disease in certain instances. Large cutaneous burns may be followed by gastric, as also by duodenal, ulcer. Arteriosclerosis, by diminishing the blood supply to the stomach and thereby lowering the vitality of the gastric mucosa, may predispose to the disease. There are certain occupations that seem to predispose; thus it is common among cooks, shoemakers, domestics, and mirror polishers. Geographical distribution or environment also seems to favor development of this affection, for records show that it is rare in Russia, fairly common in certain provinces of Germany, and four times as frequent in England as in the United States.

Among the *exciting causes* of the lesion may be mentioned anything giving rise to an interference with the vitality of the tissues of the stomach. Thus it has been supposed that thrombosis and embolism accounted for certain ulcers of the stomach; but if this is so, emboli are but seldom found by the pathologists. The same is true of thrombosis. The drain upon the system by certain menstrual disorders has been thought to be responsible by some. It is certain that gastric ulcer may result mechanically, as from the pressure by tumors external to the stomach; the constant churning of the pyloric extremity of the stomach (Mayo), tight lacing, and direct injury from the presence of foreign bodies may produce an ulcer; and a very common cause is the excessive acidity of the gastric juices (gastrosuccorrhea, or hyperchlorhydria) in certain pathologic states—hence the term "peptic ulcer." The taking of unduly hot food or drink may induce sufficient irritation to give rise to ulceration. Finally, there is an undoubted bacterial infection (Robson) originating in the mouth and producing a bacterial necrosis of the gastric wall, in a certain proportion of the cases.

Pathogenesis

Certain theories have been advanced to account for the development of gastric ulcer. Thus it is claimed by many that certain circulatory disturbances lie at the basis of the disease. Virchow first advanced the theory of thrombosis or embolism; Klebs attributed it to spastic contraction of the arterioles; and others regarded it as due to a transitory venous stasis from muscular contraction of the walls. The theory of hyperchlorhydria, or abnormally increased acidity of the gastric contents, associated with local or general anemia, has a strong following and is probably largely correct. Closely allied to this is the theory of diminished alkalinity of the circulating blood, as is chlorosis, gastric ulcer being not uncommon in chlorotic girls. Stockton has suggested the trophoneurotic theory, which regards gastric ulcer as a morbid process not unlike herpes or Raynaud's disease. Lastly, there must be mentioned the theory which ascribes the disease to the absence of natural power of the gastric mucosa to cover defects that may occur in it.

From all of the foregoing it is possible to derive the following recognized facts which have a decided bearing upon the pathogenesis of gastric ulcer:

1. The disease is commonly met with in chlorotic and hyperchlorhydric individuals, although it may be associated with normal blood and achlorhydria. (2) The disease is characterized by the digestion of a circumscribed area of the stomach-wall. It is well known that dead tissues in the stomach-wall are naturally digested, while the autodigestion of the normal gastric mucosa is impossible. (3) In gastric ulcer certain factors are present that render repair of the lesion difficult. These factors are probably circulatory in nature, since it is known that mechanically produced wounds of the stomach heal readily, while ulcerations of the stomach have occurred under all the pathologic conditions enumerated above.

Pathology

The morbid anatomy of gastric ulcer is intensely interesting. The common site of the ulcer is the pyloric extremity, 80 percent of the cases occurring there. Usually it lies upon the posterior wall. If occurring in the lesser curvature (anterior wall) of the stomach, it also commonly lies toward the pylorus. The ulcer is usually single, but in a small percentage of the cases

(about one-fifth of the number) there may be two or more. Thus Moynihan speaks of the "kissing ulcer," in which an ulcer of the anterior wall is associated with a corresponding ulcer on the posterior wall directly opposite to it. In size it varies from 1 to 4 centimeters in diameter, but may be larger than this. It is not of a uniform depth; thus it may involve only the mucosa or it may perforate the muscularis and stop at the serosa. The latter may be perforated, and the ulceration may even extend to adjacent organs.

Two distinct varieties of ulcer are found. The round, sharply defined sore, appearing as if punched out of the tissue, is the acute form and is much more common in women; while the irregular, ear-shaped ulcer is the chronic, indurated form which occurs most frequently in men. According to Mayo, the latter involves all the coats of the stomach, while the acute and nonindurated form commonly affects the mucosa only and may be so small as to be almost invisible. Fuetterer called attention to the ulcers produced by arteriosclerosis and which generally occur after the thirtieth year of age.

Occasionally a gastric ulcer will show a great amount of pigmentation. The walls of an ulcer are commonly thickened and thimble-like, save in those due to arteriosclerosis, in which case the walls are hook-like.

The microscopic appearances of the ulcer are not typical. The edges generally are more or less terraced, and the muscularis forming the floor may show fatty changes with more or less red-cell infiltration. The inflammatory and productive changes are not marked, though the neighboring vessels may show a proliferating endarteritis.

Complications

A gastric ulcer may persist for a long time without giving rise to serious symptoms other than a certain amount of gastric unrest. At any time in its course, however, sudden complications may arise.

1. *Hemorrhage.*—As already stated, in about half of the cases bleeding may be present. This may come either from an acutely formed ulcer, or may follow ulceration in the floor of a chronic ulcer, eroding one of the smaller gastric vessels, the artery of the lesser curvature or the splenic artery.

2. *Perforation.*—Sudden perforation of a gastric ulcer occurs in fifteen or twenty percent of the cases. This, as a rule, does not occur centrally, but usually to one side of the ulcer. If the ulcer is situated on the anterior surface of the stomach, the opening will occur into the general peritoneal cavity, into which the gastric contents will escape. In other cases the perforation will be minute in size, without escape of the contents of the stomach. Banding lymph will speedily close such an opening as this. If the perforation occur in the posterior wall, the lesser peritoneal cavity will be filled, and this may even-

Ulcers of the Stomach

	Tuberculous	Typhoid	Gummatous	Actinomycotic	Peptic
Location	Any point	Pyloric extremity	Any point	Any point	Commonly in the pyloric extremity and posterior wall, on the upper margin of stomach.
Number	Commonly multiple	Single	Multiple	Multiple	Usually single; may be multiple.
Size	Small	Larger than peptic ulcer	Minute	Medium	1-4 cm. or larger; chronic ulcers may be very large.
Depth	Shallow	Shallow	Deep floor, irregular, sloughing	Deep floor, covered with edamatous granulations, with pus and fungi	Irregular; often deep and may perforate. Floor clean and free from granulations.
Shape	Irregular	Irregular	Circular	Irregular	Round or oval, sharply defined or if punched out, funnel-shaped; irregular in chronic variety.
Walls	Irregular, indurated	Thickened	Edges undermined	Tumorous formation with sinuous tracks, edges thin, nonindurated.	Indurated, edges terraced in the chronic form, raised border infiltrated undermined.

tually perforate into the pleural or the pericardial sacs.

The usual cause of the perforation is a violent muscular contraction brought about by the spasm of the pylorus. This is generally induced by the nondigestion of food; hence, perforation of the ulcer most commonly occurs shortly after a meal. The particles of food themselves may cause mechanical perforation of the ulcer, especially in the acute form.

The symptoms of perforation are acute, severe epigastric pain radiating over the abdomen, associated with profound and immediate collapse, nausea, and very rarely vomiting; there is muscular rigidity; abdominal tympany will develop; and very shortly the signs of acute infective peritonitis will appear. Perforation into the lesser peritoneal cavity, while attended with pain, will not show symptoms of the same degree of severity, and will gradually be followed by the symptoms of perigastric abscess. In some cases of acute perforation death rapidly supervenes. Vomiting is a serious symptom in perforation, since there occurs, under the influence of the muscular contractions, a rapid escape of the gastric contents into the peritoneal cavity.

3. *Chronic inflammatory processes in the neighborhood of the stomach.*—These may coincide with perforation posteriorly, or they may exist prior to and independently of perforation. A partial local peritonitis results—perigastritis—and adhesions form, to the colon, the spleen, liver or pancreas.

4. *Carcinomatous degeneration* (*ulcus carcinomatosum*).—From six to nine percent of cases of cancer of the stomach arise from degeneration of gastric ulcer. Fuetterer claims that this results from atypical proliferation of the epithelial cells in the indurated area of the chronic ulceration. This process of carcinomatous development consists in an elongation of the glands, the epithelium of which becomes elevated and cylindrical. The multiplication of the cells becomes so excessive that elongation is insufficient and tortuosity results. The cell-nuclei become richer in chromatin; successive layers of epithelial cells develop (not universally so, but in many instances) and cystic degeneration of the glands will follow. This is especially suggestive when it occurs in the lower portion of the glands. Finally, the gland-cells in the dilated mucosa break through into the mucosa covering the muscularis, and adenocarcinoma is present.

Terminations of gastric ulcer.—In some cases the course of gastric ulcer is acute, but in the main it is essentially a chronic disease. It will eventually heal, in most instances; and upon the time consumed in this process will depend the size of the resultant scar. If healing occur early, there will be left a small stellate scar, without any ultimate results. In the case of larger ulcers, as those which have attained the size of a full-developed hand, the resultant scar is large, and in its subsequent process of contraction dangerous constriction may follow. If the ulcer be situated in the cardia, as it occasionally is, stenosis of this orifice may follow; if at the pylorus, stenosis with gastric dilatation will be the result; while if the ulceration has occurred in the central portion of either wall of the stomach, an hour-glass contraction of that organ may be produced.

The microscopic changes that occur during the process of healing have been described by Hauser as follows: At first there occurs a proliferation of tissue in the margin of the ulcerated mucosa. In the center of the scar there develop large numbers of tubules which are lined with cylindrical epithelium, but which have no lumen. This proliferation of tissue is arrested as contraction occurs. At the same time there occurs a regenerative proliferation of connective tissue from the margin of the ulcer, or from neighboring organs—if these form part of the floor of the ulcer. The muscle-fibers do not regenerate.

In a certain percentage of gastric ulcers death occurs from: (1) hemorrhage—either repeated small bleedings or a single large hemorrhage; (2) perforative local or general peritonitis; (3) malnutrition and anemia, which prevent healing; (4) rarely phlegmonous gastritis; (5) cancer.

Diagnosis

The direct diagnosis of gastric ulcer may be made by the history of the pain, vomit-

	GASTRIC ULCER	DUODENAL ULCER	CANCER OF STOMACH	HYPERCHLORHYDRIA	GALLSTONES	NERVOUS GASTRALGIA
Age	Progressively increasing in frequency from puberty to middle age.	Commonly in middle age or later.	Middle and advanced age.	Common at all ages except youth.	Usually in old age. Rare before 35.	Most frequent between 18 and 35.
Sex	More frequent in women.	Usually in males	More common in males. (5 to 4)	More frequent in men.	More frequent in women.	More frequent in women.
Pain	Intense in epigastrium; radiates to left shoulder. Increased by pressure and by ingestion of food. Never entirely disappears. If in lesser curvature or near cardia occurs ½ hour after eating; if pyloric, occurs 3 hours after eating.	Burning or gnawing in character above umbilicus to right of median line. Occurs in periods lasting a few days to several months. Is alleviated by taking food; is most marked from 2 to 5 hours after eating. Relieved by vomiting and pressure.	Occurs early; of a dull gnawing character; in the epigastrium. May (15 to 20%) be absent.	In epigastrium; burning in character. Disappears on taking food or sodium bicarbonate; returns in two or three hours.	In right hypochondrium, radiating to right shoulder. Sharp, lancinating in character. Not influenced by ingestion of food. Sudden paroxysms occur and disappear as suddenly. May be accompanied by chills and fever.	In epigastrium. Irregular in nature. Not influenced by eating; relieved by pressure. Frequently long intervals (3 or more days) of complete freedom from pain.
Tenderness	Marked over epigastrium, either localized or diffuse.	Frequent to right of median line; may be marked.	May be present in epigastrium; often is absent.	Usually present over epigastrium.	Marked in right hypochondrium during or just after attack.	Not present.
Vomiting	Marked in many cases. Occur 1 to 4 hours after eating.	Most marked in later stages. Occur 2 to 4 hours after eating.	Common once or twice daily; copious in amount.	Absent.	Common after intense pain; frequently gives relief. Ejects mucus and bitter, greenish fluid.	May occur at any time.
Belching	Gaseous eructations not foul, occurring 2 to 5 hours after eating. Relieved by food and alkalies.	Same as for gastric ulcer.	Usually present and of a fetid odor.	Not usually present.	May be present and may be frequent.	Not marked.
Appetite	Generally not impaired.	Not impaired.	Often very poor.	Often increased; Pica.	Lost to a large extent.	Variable.
Tongue	Dry and red with median white strip; may be smooth and moist or slightly furred.	More coated.	Usually thickly coated.	Clear or slightly furred.	Heavily furred.	Normal.
Lactic acid	Absent	Absent.	Present	Absent.	Absent.	Absent.
Hemorrhage	In 50 to 80 percent of cases. May be a large quantity of clear blood or "coffee grounds;" may be found in stools. May occur on following day. Once arrested does not appear for a long period.	Often present in very small amount or in large amounts. (Melena—large tarry stools)	Frequent in small quantity; coffee grounds in vomitus; often partially decomposed and fetid. Recur frequently.	Absent.	Absent. Is very rare.	Absent.
Complexion	Usually fresh; after severe hemorrhage may be pale and anemic.	Same as in gastric ulcer.	Yellowish and sallow; skin dry and marked cachexia.	Pale.	Yellowish, sallow or greenish.	Pale.
Loss of Nutrition	Only slight	Only in later stages.	Marked emaciation, early and rapid.	None.	Rarely, and then when jaundice is marked.	None.
Perforation	May occur after a short period of illness. Most frequent in women. (4 to 1)	Occurs twice as often as in gastric ulcer. Most often in men. (10 to 1)	May occur in late stages of the disease. Rare.	None.	Rarely.	None.
Tumor	Absent; if ulcer is near pylorus, the latter will be thickened and can be felt as a long smooth body.	None.	Frequently may be palpated. Surface uneven, irregular, easily movable in early stages.	None.	The distended gall-bladder may be palpated.	None.
Gastric Juices	Usually increased in quantity. Contains increased hydrochloric acid.	Same as in gastric ulcer.	Usually greatly decreased in quantity.	Increased in quantity and acidity.	Variable.	Variable.

Differential Diagnosis of Gastric Ulcer

ing and hemorrhage, together with an examination of the stomach-contents, which will reveal a considerable amount of free hydrochloric acid. The differential diagnosis may be made by reference to the points contained in the preceding table.

Prognosis

Gastric ulcer is always a condition for anxiety. Death may result suddenly from hemorrhage or perforation; ultimately, in cured cases, cicatrical contraction may result in stenosis, either at the pylorus or cardia, or in hour-glass constriction of the organ. At least 95 percent of patients with perforation die if untreated, while the later the operation is performed, the higher the mortality-rate.

Treatment

This may be medical and surgical. The patient must be put to rest in bed, and all feeding by the stomach must be prohibited for a week or two. As food in any form will excite a flow of gastric juice, it is better to give, instead, rectal injections of normal salt solution, 10 ounces of each, at six-hour intervals. The arrest of the secretion of hyperacid juice will generally be followed by a rapid-healing of the ulcer. Nutritious enemata may then be cautiously tried for a few days, and if there be no return of the symptom, small quantities of predigested food may be given by the mouth. Iodoform or cocaine may be given as local anesthetics, or small doses of morphine to perfect the rest from function. During this interval the stomach is washed out twice daily.

Drugs that have been employed in the treatment of gastric ulcer include silver nitrate, bismuth subnitrate, pepsin, cerium oxalate, caroid and other aids to digestion, together with the alkalis to counteract the excessive acidity. Hemorrhage should be treated by morphine hypodermically, suprarenal extract by the stomach, fragments of ice, and the ice-bag over the epigastrium. Still better is a full dose of atropine, as advised by Prof. Waugh. If the bleeding persists, the abdomen should be opened through a median incision; active hypodermoclysis be instituted, and the stomach incised. The bleeding point or area must then be ligated, cauterized or excised and a gastroenterostomy performed.

Watch the course of the disease closely for indications for surgical intervention. These are, the development of perforation, peritonitis, obstruction or severe hemorrhage; when notwithstanding a course of medical treatment carefully instituted the patient steadily grows worse; or in chronic cases, the occurrence of repeated exacerbations of the symptoms. Excision of the ulcer and posterior gastric enterostomy are the surgical measures to be adopted under these circumstances. In some instances a gastrostomy may be advisable in order to watch the course of a doubtful case. Perforation requires immediate celiotomy, with closure of the opening in the gastric wall according to the usual method of Lembert suturation. It is always best to enlarge the perforation in order to destroy the ulcer walls. Drainage should be made for a few days in these cases, after thorough irrigation and cleansing of the peritoneal cavity. The patient should be kept in the Fowler position after the operation and constant proctoclysis should be practised for thirty-six to forty-eight hours.

This is a condition in which hyoscine and morphine are indicated. Physicians are well aware of the relief afforded by absolute abstinence from food, with small doses of morphine to prevent peristalsis and relieve pain. Add to this the influence of hyoscine in enhancing both, and also in inhibiting gastric secretion, and we have a paliative of exceptional fitness. The same qualities render this combination valuable as an anesthetic, during and after such operations as involve the stomach.

Chronic Appendicitis

A New Aid in Its Diagnosis

By JOSEPH B. BACON, M. D., Macomb, Illinois

Surgeon to the St. Francis Hospital

FOR many years, in operating for abdominal tumors and other causes, which necessitated the opening of the abdomen, I occasionally found a badly crippled appendix. Sometimes it was a very long, chronically inflamed organ; again, a club-shaped, plainly strictured organ; again, one kinked and deformed from peritoneal bands and adhesions. Yet, in getting the history of the case, the symptoms of the tumor, pyosalpynx, or other lesion had overshadowed all those of appendicitis.

It then occurred to me that one might be able to diagnose these chronic appendical cases definitely if one were to prescribe a drug that would uniformly induce active peristalsis of the appendix and thus cause it to become hyperemic and tender under pressure or percussion; on the principle that any diseased part of the body, if overworked, becomes a center for pain and soreness.

I selected castor oil as the drug for use and have given the plan seven years' trial with the most gratifying results. The following is a typical case:

Seven years ago a woman was sent from an adjacent county to the St. Francis Hospital for treatment. Many diagnoses other than appendicitis had been made in her case and quantities of medicine had been taken for a long period of years without any permanent relief. She was the wife of a farmer and the mother of five children; she had had no miscarriages. She weighed 180 pounds. She had a large bony frame, with that characteristic flabby musculature that so often accompanies chronic autoinfection. She had never been confined to her bed with any serious illness, never had had a severe colic. For years (the exact time she could not state) she had felt exhausted after doing ordinary household work, and often for weeks at a time would have, as she expressed it, dyspepsia, chronic constipation, and slight colicky pains in the abdomen. She complained greatly of nervousness and exhaustion which incapacitated her for housework. She was considered hysterical by her physician and friends, hence her mental suffering became unbearable.

On careful examination of all her organs, on three different days, I failed to find anything upon which to base a diagnosis, and yet I felt sure she was suffering from autoinfection and really was ill.

I prescribed two ounces of castor oil to be given at noon and that no food be taken for twenty-four hours. I also ordered that her temperature be taken every four hours. The following day the temperature varied from 97° to 100° F., and thirty-six hours after taking the oil there was distinct tenderness over the appendix even with gentle pressure.

I operated and found an appendix six inches long, with a distinct constriction one and one-half inches from its distal end, no peritoneal adhesions, but the muscular walls very thick and chronically inflamed. She made an uneventful recovery. Gradual improvement in her general health occurred. Two years later I received a letter from her stating that she was in perfect health.

In every case in which I operated where there was distinct tenderness over the appendix twenty-four to thirty-six hours after taking the oil, distinct pathologic changes were found in the appendix warranting the operation.

I have also used the same method in a larger number of cases and proven that there was no chronic appendicitis, thus being able to diagnose more clearly gallstones, gall-bladder lesion, gastric or duodenal ulcer, by eliminating the appendix as a cause of the symptoms.

Pneumonia and How to Treat It

By W. H. AYLESWORTH, M. D., Peoria, Illinois

EDITORIAL NOTE.—Those who believe that something can be done for pneumonia, that the disease is not necessarily a self-limited one, incapable of early arrest, and that it can be profoundly modified by proper treatment, are sometimes asked to submit statistics. Last April, Dr. Wolverton, of North Dakota, told of his success in 200 cases, with a mortality of less than 5 percent—only one death in 141 cases of lobar pneumonia. Dr. Aylesworth reports even a larger number of cases, treated in much the same way. The statistics seem to be available. The methods of these men are worthy of careful study.

DURING the time that I have been a patron and reader of CLINICAL MEDICINE (and that dates back to earliest numbers) I have read many good articles concerning pneumonia and its treatment, but I find in the April, 1911, number an article by Dr. Wolverton of Linton, North Dakota, which describes a mode of treatment more nearly meeting indications and more in accord with my own views than anything brought to my attention.

Favorable Statistics From Author's Practice

In reading the essays on the subject by the various authors, I am struck by the many consecutive changes of remedies resorted to during the same attack. I, myself, begin and end the case with one and the same remedies, only varying the dosage. I do not allow a shirt to be changed, much less a remedy. There is only one exception to this rule with me, and that is in the use of emetin. I give it or I do not give it, according to the consistency of the sputa. If the sputum is thick and hard to raise or the effort to raise it is painful, the patient receives emetin. If the cough is loose and the bronchi are easily cleared by an ordinary effort of coughing, the patient does not get it, nor is it required. During the past eleven years I have made a tabulated statement of 253 cases of pneumonia treated during that time. All ages are represented in this number, and all the various forms. Of these, 78 percent were lobar in character; only one case of double pneumonia was among the number; 4 were traumatic; 31 percent were under the age of 5 years; 12 of the latter cases went on to the formation of pleural abscess and in 4 of these the pus was removed by aspiration; 8 patients had to have ribs resected and drainage-tube introduced. One of the last four named is tuberculous, and is now living in the Denver hills trying to evade a fatal issue, and my judgment is that he will succeed. If he dies, it will be the first and only death in all these 253 cases treated by me. But I want to clinch one fact good and hard while I have a chance, and that is that in none of these cases were the old-fashioned galenical preparations employed; I took no chances on inert drugstore mixtures, but in every instance used the active, sure, reliable remedies known as *active principles*.

The "Do-Nothing" Doctors

Brothers of this alkaloidal "family," do you remember, about two years ago, a "would-be" authority of Chicago writing an article on pneumonia, in which he said that there was no known successful treatment for this disease and that under the most favorable conditions 28 percent of all cases were fatal? Do you not think this would-be authority should throw aside his prejudice, drive himself again into his books, and admit that he does not know anything about it? Such a confession would do his soul good, and his patients would benefit by his gain, after he had got far enough along in his studies to employ the alkaloids safely and sanely. But prejudice is the fence around his field of bigotry and ignorance, and it is hard to compel or entice him to jump over that fence. There are a lot of the profession in behind that fence. Let us persuade them to "come on over."

As for me, I am a "jumper," if the pasture is better in the next field. If in the next field my remedies are surer, more reliable, purer, quicker in action, my service more successful, if I can do more good in the world to my fellowmen, then I refuse to be fenced in, and the whole world is only my boundary, and no fence.

The "Clinical Medicine" Way of Reasoning

About the causes of pneumonia I shall have nothing to say, but the pathology and treatment are of interest. The text-books are very accurate on the pathology, but are not as exact on the treatment—they do not tell you how. It has been left for CLINICAL MEDICINE to educate us doctors in ways that have made them masters of pneumonia and other diseases formerly fatal in too high a percentage under customary methods of treatment.

In pneumonia the pathology relates to the deposit of mucofibrin which plugs the bronchus leading to a lobe, causing swelling of the part closely in contact with it, cutting off blood supply and if that plug is not pulled resulting in abscess of the lobe or lobes to which that clogged bronchus leads. Through this abscess-wall the pus is very rapidly absorbed into the blood, to poison the nerve-centers and lower the pulse-rate and heart's strength. At this very point is where we used to fail, for it is a fact in pneumonia that, if we wait to start in with our stimulants until the heart's action has failed, we cannot stimulate it to normal strength again; but if we begin stimulation early, we can hold the heart's action up to normal if our other treatment is adequate.

But we must pull that plug out of the bronchus. My experience teaches me that early stimulation will carry a pneumonia patient over and usually safely through abscess formation and evacuation, when, if we wait to apply our stimulating remedies after depression comes, death ensues before or during abscess formation and many of the patients die in the congestive stage.

It is on this "fibrous-plug pulling" and this early stimulation that I base my success. It is on this pus-producing part of the pathology that I have put all my thought and study and based all my remedies. And I have satisfied myself by the results. I am also satisfied that early stimulation will jugulate or abort a case of double pneumonia and make it a single-sided one. I am also certain that early stimulation will destroy all chance of gray hepatization in a lung following pneumonia; in other words, I wish to be understood as saying that no gray spots of hepatization will result in a case treated by thorough and early stimulation, but, on the contrary, an old hepatized spot in a lung, that may have been there for months or years, will become absorbed and disappear should that person contract pneumonia and be treated by early and thorough stimulation. I have noticed this many times among the weak and debilitated ones who became my patients for pneumonia treatment. Not all forms of deposit are thus absorbed, but all forms of inflammatory origin outside of traumatic causes will be absorbed.

The symptoms are well marked, being usually a chill, with some tendency to vomit, followed by a rapid rise of temperature of from 2 to 5 degrees, more often reaching 105° F. in children. A child may have a convulsion in the place of the chill. The pulse is very much quickened, respiration about twice as rapid, but shallow and guarded, as if they were afraid of hurting something in taking a full breath. The lips are very red or livid and the face has a dusky flush. Coughing is always or nearly always present in the form of a hacking effort. The material raised at first is colorless and scanty, afterward more profuse, becomes rusty-brown in color or even streaked with blood. Pain in some portion of the lung or pleura, more or less severe and made worse by constant efforts at coughing, is experienced. There are the well-known crepitation, vocal fremitus, dull sound and pain felt on percussion. Breathing sounds are tubular or bronchial in character. Well, let us remember just enough of this rehash of old facts to keep in mind what is present in a given case in hand and what changes are taking place. Now to our treatment.

My Method of Treatment

A pitcher of water, a goblet, and teaspoon are at the bedside. Twenty strychnine arsenate granules, gr. 1-30, 18 granules of atropine, gr. 1-250, 18 digitalin, gr. 1-67, and; 18 glonoin granules, gr. 1-250, are put into the glass. Crush them, and put 24 teaspoonfuls of water in the glass. When completely dissolved, give of this mixture one teaspoonful every one-half hour for three doses. By the end of that time the skin is active. Vasomotor disturbance is overcome. As a plug puller, to remove the fibrous material, to stimulate still further, to defibrinate, give: Ammonium chloride, drs. 2 1-2; antimony and potassium tartrate, grs. 1 1-2; syrup of glycyrrhiza, glycerin, of each sufficient to make a 4-ounce mixture. (Dr. N. S. Davis, *Medical Record*, 1874.) Label: Give one teaspoonful every three hours. As a local application I use equal parts of guaiacol and lanoline. Thin cloths are saturated with this and spread evenly over the chest and all is covered with a well-fitting cotton jacket. If my patient is addicted to the use of alcoholic stimulation, I give him his usual amount, even a little more.

I begin the course by a good, thorough physic with calomel and saline laxative, followed by the sulphocarbolates of lime, zinc, and soda. After this cleaning out I content myself if my patient has but one evacuation per day during the rest of his illness. I give all the brandy my patients can take and be classed as sober. I push every remedy enumerated above to full physiological effect; then I maintain that effect. And I wish to say right here that you cannot maintain the effect with a galenic preparation for one week or ten days and hold steady the effect you want—the stomach will get so irritable that all treatment would have to be suspended. Not so with these principles: they are always kept down, and if the idea of "clean out, clean up, and keep clean" is adhered to, their uniform, steady, and sure effect can be relied upon.

I never use aconite, but I do use *aconitine*. I use aconitine for the first twenty-four hours, but not after that. I depend on emetin to thin the expectoration, and it will do it. It makes the cough less labored. A little morphine, to relax the patient, often is a fine thing to give.

The diet is milk, stale bread, soups, and fruit juices. A well-aired room, without carpet-dust, and no direct draft over my patient, is insisted upon. A good, old woman who has raised a family to act as nurse and *do exactly* what you tell her is in charge.

What, not a trained nurse? Well, not if I can get the right kind of an old woman. You see, I am trying to save my patient, instead of treating and burying him in a scientific way. In fact, I am trying to prevent the grave from hiding one more mistake, and I am very particular about this matter of nursing. Usually I camp very close to the patient until I see the fever gradually coming down, cough getting loose and patient resting. When I have several cases of pneumonia on hand at one time I have very little time for society functions.

The Use of Stimulants

The stimulants used in this treatment are the strychnine arsenate, 1-30 grain, to make the heart a better pump for forcing the blood to parts lacking nutrition. Atropine, a direct heart tonic and stimulant, dilates the bronchi and uncorks clogging mucus, stops the spitting of blood, fortifies the system against shock, and unites with other heart stimulants to keep the heart's action steady and strong. Glonoin, to act with other heart stimulants in order to make their action uniform and steady and to maintain that action. Digitalin, for its direct action on the heart-wall. Ammonium chloride, to defibrinate the fibrous plugs of the bronchi, to stimulate, and to carry to the system the lacking chlorides, or augment them. Tartar emetic, to assist in defibrinating the mucofibrous plugs of the bronchi by thinning the exudations and making them more easily raised. Peach brandy (best) is added to all the other stimulants, to feed, to stimulate, to quiet the craving of some patient who may have that craving, thus leaving nothing undone that would contribute to the comfort of

our patient. The foregoing stimulants as a whole are difficult to improve upon when applied to pneumonia, as they fulfil every indication.

When we defibrinate in the aged or in the young, we should also watch the kidneys, because a lot of waste matter is thrown into these organs for elimination. If some doubtful physician or beginner will only follow closely the treatment outlined in this paper, he will have no hesitancy or dread when called to treat these patients, while, after getting used to this stimulating treatment and watching the cases closely, he will save every one of them if called early.

Lobelia and Pneumonia

By W. W. COX, M. D., Harrold, Texas

EDITORIAL NOTE.—Lobelia was the great panacea of the botanic school, founded by Samuel Thomson. That it has substantial therapeutic merit, and that its possibilities are far greater than it is usually accredited with possessing, we are just beginning to realize.

LOBELIA was introduced by Dr. Samuel Thomson in 1808, and although one of the most useful and powerful agents of our entire therapeutic armamentarium, the medical profession, as a whole, really knew very little about the wonderful properties of this agent until within recent years. It seems strange that an agent so useful as lobelia should have been before the profession so long and yet so little really be learned about it. Still, this is not so strange, when we stop to consider that the contemporaries and enemies of Dr. Samuel Thomson really knew but little about this agent, yet persisted in ascribing to it properties which it never possessed. Although Dr. Thomson and his followers for over one hundred years have classed lobelia among the nontoxic agents, and as such, have used and prescribed it liberally, all writers except Dr. Thomson and his followers have, so far as we know, classed this agent among the poisonous narcotics. As an evidence of the erroneous impressions concerning this agent, note the statements of recent experimenters, that the agent given in 1- and 2-dram doses, hypodermatically, does not act as a depressant. It seems superfluous, at this late date, that authorities should be quoted in substantiation of this position, since the agent has been in use so long; nevertheless a few will be given.

Dr. Thomson, himself, declared it nontoxic, and says that an excess above a normal dose is thrown off by the system without doing any harm. Prof. Wm. Cook, author of Cook's "Materia Medica," says: "I have given 6 ounces of the herb to a babe, six months old, in two hours, and have given a child of five years 4 ounces of the seed [said to be twice as strong] in seven hours, and had it retained." Surely, if a quarter of a pound of the seed did not prove toxic there is very little danger in it. Prof. W. Tully, of Yale College, says, in a letter to Dr. H. Lee, 1838: "It is true that I have stated in my public instructions that lobelia inflata is entirely destitute of any narcotic power. I have been in the habit of employing this agent for twenty-seven years and of witnessing its employment by others for the same length of time in large quantities and for a long period without the least trace of any narcotic effect."

Properties of Lobelia

Now, as to its properties. Prof. Wm. Cook says: "Lobelia is a pure relaxant, possessing the faintest moiety of stimulating property and this of the most transient character [that is, stimulating property], expending itself upon the fauces, glands, and mucous membrane of the mouth and respiratory organs. The circulation is materially equalized by its use and the blood-vessels relieved from a condition of tension, whether the case be one of inflammation or fever. By relaxing the circulatory apparatus it favors a full outward flow of

blood with diaphoresis; secures greater fulness and softness of the pulse with a reduced excitability of the heart; and from the universatility of this influence, expedites the reestablishment of the secretions of the skin, liver, and kidneys."

On account of the effects as here enumerated, some have classed lobelia among the cathartics. However, Dr. Thomson says, and that after having used the drug twenty years, he was unable to ascribe to it any cathartic action. These effects upon the liver, skin and kidneys above mentioned are due, no doubt, to its action in bringing about normal secretions and excretions through its powerful influence over the vasomotor apparatus, thus equalizing the circulation and restoring normal functions to all the organs.

Thus it will be seen that by reason of this power of equalizing the circulation this drug has a wide application, and to mention here particular diseases in which the same would be useful would be an unnecessary digression. Suffice it to say that, if we keep before our minds the fact that this agent is one of the most powerful, yet harmless, relaxants, known and hence indicated wherever relaxation of the tissues is indicated, we can seldom go astray in thus using it. Imagine any condition where there is an elevated temperature with high tension of pulse, or some conditions where there is even the wiry, thready pulse, and you have in lobelia a powerful and harmless relaxant to meet that condition.

Effects of Over-Dosage

Lobelia, however, notwithstanding all the praise we have given it, has some very alarming and exciting properties. Sometimes, when taken in too large doses, it gives rise to violent distress and cramping in the stomach, causing the patient perhaps to jump out of the bed and roll on the floor; to try to climb a wall or make other foolish and maniacal demonstrations. But this effect is only momentary, and soon a feeling of ease and comfort supervenes. This action of the drug in sometimes causing great distress or uneasiness and alarming symptoms, when taken in large doses, is explained by Prof. Cook as being due to too sudden relaxation of one part of the system before it has had time to reach all parts of the system, thus disturbing the equilibrium before the agent has had time to be generally diffused and bring the entire body under its equalizing influence.

A person can also be so thoroughly relaxed with lobelia that he cannot move a muscle, raise a finger or even so much as "bat an eye." This condition is known as the stage of "alarm"; so named, perhaps, from the fact that it does give rise to real alarm if observed by one who has never before witnessed it. I have often wondered whether anesthesia accompanies this stage of "alarm," and if an opportunity ever again presents itself I shall certainly make a test. I feel pretty certain, however, of one thing, and that is, that no matter how much a patient might be punished while in this condition he would be powerless to remonstrate, yet the sensory function might be as acute as or even more acute than under normal conditions.

"I have seen a patient who would lie and sob like a child who had been punished, for two hours, not able to speak or raise his hand to his head, and the next day be about, and soon get well. In cases where considerable opium has been taken and lobelia is administered, it will, in its operation, produce the same appearance and symptoms that are produced by opium when first given, which, having lain dormant, is aroused into action by the enlivening qualities of this medicine. The patient will be thrown into a senseless state; the whole system will be disturbed with tumbling in every direction; it will take two or three to hold him on the bed; he grows cold as if dying, remaining in this way from two to eight hours; and then awake, like one from sleep after a good night's rest, and entirely calm and sensible, as though nothing had ailed him. Patients seldom have more than one of these turns, as it is the last struggle of the disease and they generally begin to recover from that time." (Dr. Samuel Thomson.)

Action Like That of No Other Drug

There is no agent in the entire materia medica, so far as we know, with which

lobelia can properly be compared. While it slows the pulse and reduces temperature like veratrum or gelsemium, yet, unlike these agents, it never reduces the pulse or respiration below normal, no matter to what extent it is pushed.

When given cold in average doses, where there is a full, foul or fermented condition of the stomach, it acts as a very quick emetic, especially if it is combined with such stimulants as capsicum and ginger; so also does combining it with an alkali (as carbonate of sodium) increase its emetic properties—and in these conditions and thus combined one need not want a more rapid emetic, the result being almost instantaneous.

Given in a little hot water and on an empty stomach, lobelia seldom produces emesis. Beginning with 5-drop doses of the fluid extract or tincture, or even, sometimes, much larger doses, repeating every fifteen to thirty minutes and gradually increasing the dose, say to 30 drops, the entire system can be brought thoroughly under its influence without emesis. Furthermore, given in minute doses of 1 or 2 drops of the tincture or fluid extract in a little hot water, it acts as a very satisfactory sedative in irritable stomachs, often allaying vomiting when other agents fail.

Dr. Thomson spoke of its beneficial effects in curing asthma, as far back as 1808. He says: "I cured a woman in Newington of the asthma who had not lain in her bed for six months. She lay in bed the first night after the treatment."

A Case in the "Alarm" Stage

I myself never saw but one case in the stage of "alarm," produced unintentionally, however, and this after I had practised medicine for twelve years. Never having seen a case, I had almost forgotten that lobelia produces such an effect. To a little boy seven years of age, who was almost asphyxiated from laryngeal diphtheria, I gave, every fifteen minutes, in a little hot water, 30 drops of the fluid extract, for six doses, when I rested. And lo! the boy rested, but the family rested not. They walked the floor for the next two hours, but my little patient was apparently dead to the world. If he had been profoundly intoxicated from liquor he would not have been any more limber and seemingly unconscious. All of the lobelia was retained. Prior to reaching this stage he always responded quickly to every call to take medicine and raised himself in bed for that purpose, but now he could not be aroused nor even made to open his eyes, showing no signs of life except the respiration and pulse. He was as limber as if he had not a bone in his body, and when raised and shaken in an endeavor to arouse him his head rolled around and fell upon his chest as limp as if the neck had been broken. It was useless to try to arouse him. Each effort to do so only alarmed the family the more, they suggesting among themselves that the doctor had given an opiate. I assured them that I had given no opiate, but only medicine to relax the patient thoroughly and enable him to breathe and rest better; that the medicine was perfectly harmless; that the patient would come out all right, without any bad after-effects, and really feel the better afterwards. All of which came true.

During this "alarm" stage the pulse was full, soft, and reduced somewhat in frequency, perhaps ten beats slower than before; the respiration was free, deep and regular; a gentle perspiration covered the entire body—not of a colliquative nature, but just enough to give the skin a soft, moist, velvety feeling. After an hour and a half or two hours of this stage of "alarm" the boy turned over, coughed up some tough mucus streaked with blood, then was again wide awake and responded to every call as before.

To a young lady suffering from a severe attack of pneumonia, which had been ushered in with a chill followed by a hot, burning pain in the chest and a temperature of 103. 5° F. I gave, every two hours, a No. 2 capsule filled with 12 parts of pulverized lobelia seed and 9 parts of pulverized capsicum. About fifteen minutes after taking the capsule she placed her hand upon her stomach and suddenly cried out to her mother "Oh, he's poisoned me, he's poisoned me!" The mother promptly was assured that there was no cause for alarm; that her

daughter would soon feel easy; that there was no danger whatever in the medicine. This conversation had scarcely passed, when the girl became easy and was soon in smiles. The temperature quickly dropped to about 102.5°. The temperature continued to fall, till on the fourth day it was normal, when the patient was dismissed. This simple treatment followed by a cleansing of the intestinal tract constituted all the treatment.

Of course, this is an extreme case, these alarming symptoms not occurring, perhaps, one time in forty; but this case is only given to show what may sometimes be expected. It will surprise one how nicely this combination equalizes the circulation, lowering tension, softening the pulse, producing a normal diaphoresis, and in thus bringing about a normal action of the body-functions it conduces to the general comfort of the patient.

"Equalize the circulation and nervous action." I do not know the author of this oft-quoted expression, but it is the ideal condition; and when this is obtained, what more could one desire and that's what this combination does. Nervines can and should be added to this, if indicated. I believe this treatment will abort many cases, and it is often appropriately continued throughout the course of the disease but more stimulation, or heart tonics may be added if deemed necessary.

The following year, after the occurrence related this girl's father was stricken with pneumonia, and although attended by several physicians (the writer not among the number) he passed into the great beyond on about the ninth day.

Advantages of Lobelia Treatment

The beauty of this treatment is that it can be pushed to its full physiologic effect (which is nausea) without doing one particle of harm; in fact, when you reach the point of nausea and hold your patient there, increasing or decreasing the dose a little as may be necessary, and yet have the medicine retained, you may feel almost as sure as anything in medicine that your patient is not liable to pass over the great river. The writer doubts very much whether any improvement upon this simple treatment, from the standpoint of death-losses, will ever be made.

Of course auxiliary measures, such as cleaning out the bowels, and the topical applications, consisting either of the glycerinated pastes or hot poultices of bran or mush sprinkled over with lobelia seed and applied to the chest, are not to be forgotten. Nausea and systemic relaxation is sometimes produced by sprinkling upon the poultice too thick a layer of the lobelia seed.

The death-rate in Oklahoma, in 1909, from pneumonia was given at over 55 percent. Oklahoma's vital statistics for July, 1911, show 28 cases of pneumonia, and 23 deaths, almost 100 percent. I am inclined to think there is something wrong with these figures, but if true, it is horrible to contemplate. Yet I dare say. that under the simple treatment outlined herein the losses would not have exceeded 5 percent.

Just here permit me to protest against the advice and practice of some of placing too much stress on first cleansing the alimentary canal and only as a second consideration directing the attention to the removal of the congested condition of the lung as of secondary importance in the treatment of pneumonia. It seems that such practitioners have the cart before the horse.

It is now pretty generally admitted that pneumonia can be aborted. If not now admitted, it might as well be, for it will in time have to be admitted. It is further admitted that the longer the lung remains congested, the greater the danger of exudation; and when exudation takes place we have a pathologic condition to deal with, hence still greater danger. Then why wait six or eight hours for the cathartic to act before directing attention to the congested lung? The cathartic may wait a few hours, and in many instances might not need special attention; but I maintain that it is dangerous and not giving the patient the best chance for his life not at once to direct attention to the congested organ.

We now know to a certainty how to remove this congestion; exactly what agents to administer to give our patient the very best chance for his life without any "may-

be sos," or without "trying a little" of this or a little of that. It was all right to "try a little whisky," or "try a little morphine," or "try a little quinine" away back in the dark ages, but now there is no longer any excuse for such ignorance.

We now know there are very few reliable agents with which to begin the treatment of pneumonia, and they are the relaxants, such as lobelia (or lobelin), veratrine, aconitine, etc., with, perhaps, the slightest moiety of stimulation in the beginning—just enough stimulation to make the relaxants more diffusive, increasing their usefulness and taking the work off the already overworked heart; and for this purpose ginger and capsicum are very appropriate and later cactin, strychnine arsenate and digitalin, if necessary. I have had very little experience with lobelin, but from my limited knowledge of it I think it would be appropriate, more pleasant, to give and do all that the agent would do in any other form. I heard hypodermatic injections of lobelia in such cases as eclampsia, tetanus, etc., recommended some thirteen years back, but never used it but once hypodermatically, and this nine years ago. In such cases as tetanus, eclampsia, or violent convulsions, either tonic or clonic, from which the patient appears in great danger, I should not hesitate to use lobelia (or lobelin) without stint or measure.

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[Lobelia is so highly lauded by the botanic or physiomedical school that we are glad of this opportunity to present the claims made for it. Considering the violence of the reaction that sometimes follows its use some of us may question its nontoxic character; but that it is a valuable drug those who have used it do not doubt.—Ed.]

Recollections of an Agency Physician

A Doctor's Life Among Indians

By JAMES L. NEAVE, M. D., Dresden, Ohio

EDITORIAL NOTE.—Dr. Moody's fine Indian series has stimulated another reader of "Clinical Medicine" to tell us something of life among the red men, as he saw it years ago.

I HAVE taken great interest in reading the series of articles on the Nez Percés Indians by Dr. Moody; and noticing they were not strictly medical, but none the less interesting on that account, it occurred to me that possibly certain experiences of my own among the Indians might be of sufficient interest to appear as a sort of complement to the Doctor's articles.

Among the Arickaree, Gros Ventres and the Mandan Tribes

It was my privilege to spend seven years of my life at Fort Berthold, North Dakota, among the Arickaree, Gros Ventres and Mandan Indians, as government physician. Naturally, the life was different from any that I had been accustomed to, and the happenings that filled in that life were different from any in my previous experience.

When I first went among them, I was naturally received with some distrust; the socalled medicine that they were accustomed to being entirely different from an intelligent system of healing that I was supposed, at least, to represent. Also the socalled medicine-men were perfectly aware that any foothold I might obtain would be at their expense, in the way of influence as well as in their manner of making a living. Not that the Indians paid the white physician anything (my salary was paid by the government), but if they got well under his ministrations, they did not have to call on their own medicine-man, and thus he was out his fee. Also, any influence I might obtain would be

that much lessening of their own; and of this they were exceedingly jealous. I will remark, in passing, that before I finally resigned my position I had succeeded in practically undermining their power, and yet, for all of that, enjoyed the friendship and regard of almost every one of the medicine-men; so much so, in fact, that they nearly always called me into their own homes in case of sickness.

"All of Us Doctors Are Frauds"

On this subject let me relate a little incident, and the reader may place his own construction upon it. My good friend, old Dr. Two Crows (Ka-Ka-Pitk), one day, in my office, very confidentially expressed the opinion that we ought to agree to help each other. Each of us, he said, was a doctor among his own people. We were both frauds, he in his way, I in mine, and we both knew it. Therefore, this copper-hued humbug opined, I should treat him to a drink of whisky, on the strength of our newly discovered and esteemed brotherhood. Without a word I proceeded, with serious mien, to mix up some syrup and peppermint water and gravely handed it to my "brother-in-fraud." With a delighted look the "doctor" stepped into a corner of the dispensary, lovingly placed one hand over his abdomen, blissfully closed his eyes, and poured down his expectant throat what he fondly supposed was whisky. But, say! you should have seen the grieved expression, mingled with deepest disgust, that overspread the features of the old cheat as he placed the glass on the counter, drew his blanket over his head and silently stalked out. There was fraud somewhere, certainly. He never again asked me for a brotherly "finger" of whisky.

A Very Bad Combination

Speaking of whisky, reminds me of the well-known fact that whisky and an Indian make an exceedingly bad combination. As an illustration, I have in mind my friend Bad Gun, who was quite a decent sort when sober. But get him drunk—well, the best policy, especially for a white man, was to be reminded of urgent business out of this Indian's immediate neighborhood. The old fellow would do up his hair in a loose knot, which he invariably placed over one ear. He never adopted this particular tonsorial arrangement except when he was hunting trouble, so that it came to be called Bad Gun's war-bang. He also put on his oldest clothes, provided he wore any. Sometimes, however, he wore nothing but his breech-cloth and paint. Grabbing his tomahawk, and at times his rifle, he would jump onto his pony and rush pell-mell for the trader's store. Reaching there, he would charge up and down, striking the logs with his tomahawk and occasionally sending a bullet in that direction—a picture of a wild, ungovernable savage. The Indians invariably warned the trader of impending trouble, when he would close the store, barricade the doors and windows, and retire upstairs, where he was safe from bullets; the Indians themselves kept cautiously out of sight. This is only an example of the way whisky generally affects an Indian.

The Treacherous Cache-Hole

Speaking of the trader's store, calls to mind an occurrence that is more interesting for me to think about now than it was at the time of the occurrence. In the old days, when the Indians were yet in danger of hostile incursions from other tribes, it was a common practice to bury much of their provisions in cache-holes resembling cisterns in course of construction. One of these cache-holes was located in front of this trader's store, but it had been abandoned, the mouth had been covered over with boards and earth, and then was forgotten.

One day, as I galloped my pony in front of the store, I all of a sudden flew out of the saddle, turned a somersault over the horse's head and landed on elbows and knees, fortunately far enough beyond not to be struck by the animal which also turned head over heels and lay there, heels up, braced over a hole by the horn of the saddle on one side and by his head on the other. It turned out that the pony had struck squarely on the concealed rotten boards over the cache-hole described and had gone in the full length of his forelegs. Luckily,

neither of us was seriously hurt. In those days, however, I guess I was about half Indian—dressed carelessly, about lived in the saddle, always rode at a gallop, and could stand more knocking around than I can at present, and a little thing as here just described did not bother me much.

Syphilis, Followed by Typhoid Fever

In a former article I spoke of the prevalence of syphilis in its various forms among the Indians, and of the activity of the poison if transmitted to a white man. My memory reverts to an interesting case along this line. At one time I was treating an Indian woman with a venereal ulcer on the vulva, that was large and deep, the size of the end of one's thumb. I gave her blue ointment. With this she plugged the hole, then rented herself out to a white man for temporary purposes, and the intimate point of contact was directly across this ointment-filled sore. Strange as it may seem, the man later developed a beautiful case of syphilitic eruption. followed by an almost perfect case of alopecia, he becoming almost as bald as a billiard ball. Later he had a very severe attack of typhoid fever from which he eventually recovered. After that, as long as I kept track of him, he never had any further symptoms of syphilitic taint. Does anyone suppose that typhoid fever could so modify the system as to result in a cure for syphilis? *Quien sabe?*

Western Sandstorms and Blizzards

Yes, I have been mixed up with sandstorms as well as blizzards. A sandstorm you might call a sort of summer blizzard with sand substituted for snow. When a sandstorm comes fooling around, it lasts several days. It fills your eyes and lungs and incidentally your neck with fine, sharp grains of sand. Trying to see is a nuisance, and breathing is a delusion. It blows in between the sashes of your window, sends a stream through the keyhole, and will hunt up a crack in your door that you hadn't noticed before and pile up on your carpet. You stay indoors mostly during the sand movement—don't seem to have any business in the outer world.

Blizzards? Well, it's just about the same thing when a real one pays you a visit during the winter. First the snow comes down out of the clouds, then it blows up from the ground, and then you imagine it comes from all four points of the compass at once. Then you turn to get your back to the wind, and next you lose all sense of direction—and that is the time you get lost.

The air is filled with fine, sharp needle-points of snow going any number of miles a minute, and you can't see; and you gasp for breath; and the thermometer keeps going down to 30 or 40 or 50 degrees below the zero point, and you freeze—unless you get into a house or under cover of the right sort.

I have been in blizzards and should have been lost once, only I ran face first into a high-board fence that I did not see until I struck it; and then I didn't see it nearly as much as I felt it. A blizzard lasts about three days blowing one way, and then three days blowing in the opposite direction.

Being often caught in small blizzards, I developed the faculty of dropping the eyelid on the side toward the storm and using the bridge of the nose as a shield for the other eye, which I kept wide open. The ability thus acquired to hold the eyelids in this manner for indefinite periods comes handy to this day.

As an example of how much lost a person may become in a blizzard, I recall an instance among a number of similar ones, where our mail driver lay all night under his mail wagon, covered head and feet with his buffalo robe, not knowing that he was about one hundred yards fron his station, where a cup of hot coffee and a warm bed were awaiting his arrival. When he came in at daybreak, the air was filled with profanity about as full as it had been the night before with snow.

Mrs. Black Bear—Termagent

Indians, like other human beings, have tempers, and some of the exhibitions that I was witness to were decidedly of the explosive variety. Mrs. Black Bear was of the termagent variety, and the language that she was master of seemed of the lurid style, although the words came so fast that

no one but an Indian could possibly understand them. The way she would pour out her vocabulary, mitrailleuse-fashion, over the head of her spouse was interesting to everyone but the man affected. At last he rebelled and left her—and took to himself Mrs. Two Bears, for his new wife.

One hapless day, after the new arrangement of these domestic affairs had been running a short time, Mrs. Two Bears was chopping wood for the clerk, standing with her back toward the Indian village. But, unforeseen, the abandoned wife made her appearance in the yard, carrying an empty iron bucket, espied her hated rival, slipped up behind and struck her might and main with the bucket. Events followed so quickly that onlookers could scarcely keep track of the two thoroughly infuriated women. Mrs. Two Bears let out a screech, ran into the clerk's house, grabbed up a heavy knife nearly eighteen inches long, and was back at her rival before the onlookers realized the gravity of the situation. Mrs. Black Bear was struck on the head and had a long gash inflicted. Blood, hair, squaws, dust, screams, confusion and excitement filled the air for a few moments—but the combatants were finally separated and quiet was restored. Then I sewed up Mrs. Black Bear, who had sustained but a scalp wound, after all. It was found that Mrs. Two Bears in grabbing the knife held it topside down, so that she struck with the back of the knife instead of the edge, or there would have been a more disagreeable ending to the affair, probably.

This same Mrs. Black Bear at one time became angered at one of our employees who was issuing meat to the Indians, because the piece given her did not suit her ladyship. She flung the piece onto the floor, jerked her knife out of her belt and struck a downward blow at the man; but, the latter bending in and springing back, the knife merely grazed his shirt and pants, struck the floor, and stuck there. Thus, luckily, a fatal termination was avoided.

Some Surgical Experiences

One of the worst-looking gunshot wounds that came under my care occurred in the person of one of the white employees at the agency. He had been hunting over the prairie, riding in a light wagon. His rifle, a 44-caliber army Winchester, had been carelessly laid in the bottom of the wagon with the hammer raised at full-cock. Sighting game, he stopped, ran around to the tail end of the wagon and tried to jerk out the rifle, muzzle end first. As might have been expected, the gun went off and the bullet plowed clear through his upper arm. At the bottom of the ugly wound could be plainly seen the brachial artery, apparently untouched. It was a most wonderful wound, because of several peculiarities. That a bullet of this size should make such a hole under the circumstances related and leave the artery and bone untouched, seemed almost incredible. The only explanation I can hazard is, that the man was very fleshy with a very fleshy arm, and presumably the two cushions of fat on the chest and arm kept a space between the ribs and humerus sufficient to permit the bullet to pass through harmlessly as it were. The arm recovered without the formation of any pus.

Other difficult surgical cases came under my care, and I did not always get much credit for my work, either. Once, an Indian, when attempting to pull a harrow from his loaded farm wagon, tripped, fell backward, the heavy harrow toppled down on him, teeth first, and one tooth was driven deeply into his thigh, pinning him to the ground. When I saw him later, the thigh was hot and inflamed. A poultice, to start suppuration, would have been the proper thing, but I knew it would be perfectly useless to suggest such a thing. As a compromise, I suggested wrapping the thigh in cotton batting, which I directed to be kept wet with hot water. The cotton was accepted and I was told that it would be used. On calling the next day, I found the bundle of batting hanging on the bedpost, still in its original wrapper. Asking for an explanation, I was informed that if the cotton was "good medicine," it would do as much good hanging to the bedpost as it would if wrapped around the leg, and this was less trouble.

Possibly the fellow was right. Who knows? As a finale, I will state that the

wound had never been cleaned in the slightest degree; and, further, that the man made an uneventful recovery. How is that for us to contemplate in these days of surgical cleanliness, antisepsis, and germiphobia? I dressed a fractured clavicle for one adult Indian, getting a splendid job with the broken ends of the bone in a nice position. Next day the bandages were all off, because the man felt more comfortable without them. I replaced them, only to find them moved the next day. One more repetition, and I gave up. Yet, for all that, the Indian recovered, with a fairly good result.

They Are Voracious Eaters, and Improvident

Indians were accustomed to eating when they had anything to eat—and starving with gravity and decorum when the supplies gave out. When a hunter came in with any game, he called in all his relations and all his wife's relations and they had a feast. Incidentally, they stuffed themselves, for it was the custom to clean the platter and leave nothing for the next day—that might take care of itself. The Government actually had to force them to save wheat and potatoes for seed or they would use all they had and then apply to the agent at planting time for seed. The Government built cellars for them, and then, when the cellars were dilapidated, the Indians refused to repair them until they were paid for doing so. They were compelled to store their wheat in the mill, the agent giving them slips showing the number of bushels stored by each individual. They would draw on the mill for flour, and then nearly raised an insurrection when in the end they failed to get out as much wheat as they had stored. They could not be made to understand that they had used up some in flour, and that shrinkage had to be allowed for.

Referring to the native's eating capacity, let me tell of an incident that occurred at Fort Stevenson. The officers were discussing the wonderful capacity of the Indian stomach, when old Crows Breast appeared in the Fort. He was a husky specimen, and the officers decided he would be a good example to experiment with. So they agreed that several of them would hold themselves ready to invite him to dinner, one at a time, and test his capacity. When he put in an appearance at the store, one of the officers invited him to dinner. Taking him to his home, the officer allowed him to eat all he would; then he took him back to the store. Thereupon another officer invited him out, he partook of another good dinner, and was again returned to the store. A third officer took him home and attempted to fill him. But when he accepted a fourth invitation, the officers threw up the sponge and incontinently fled, leaving this sociable child of nature disconsolate to think that these men should discontinue so abruptly their hospitality. The problem of "how much can an Indian hold" is still an unsolved enigma, an algebraic x as it were.

Wily Old Sitting Bull

One of the notables that it was my good fortune to meet was the redoubtable Sitting Bull. The Sioux and the Indians belonging to Fort Berthold were deadly enemies, and had been for years. Consequently the sudden appearance of Sitting Bull set us to thinking. He dropped into the Agency proper, one evening, and asked the agent to permit him to remain over night, and to arrange for his safety among the Indians on the following day. This being attended to, there was a sort of armed neutrality during the time the big chief remained with us. In company with a white visitor—a tenderfoot—I met the old fellow at the trader's store. The stranger expressed the idea that Sitting Bull must be a very overrated individual, because his face was so stolid and expressionless. I smiled, whereupon the other sought to convince me of the correctness of his opinion. All I could reply was, that an Indian's face is no open book to be read by every chance observer. The face might be all he considered it, but the eyes told a different story to him who was acquainted with the Indian character. I maintained that Sitting Bull had a special purpose in making this visit, that he did not intend this should become known to the whites, and that time would prove my theory correct.

Old Sitting Bull's face was perfectly impassive—expressionless, in fact; but the bright, acute eyes were taking in everything, and intense earnestness glittered in them. Nothing except dancing and feasting occurred during his visit; but before long, the country was aroused by the ghost dances, and was startled by the tragedy at Wounded Knee. Then it came out that the wily old Indian was endeavoring to enlist our Indians in the ghost-dance craze, and failing in his purpose, did induce them to remain impassive. My opinion of the man proved to be correct.

The Lovable Papooses: Dr. Moody Corroborated

The section of Dr. Moody's article descriptive of Indian children is worth notice. It is in my power to emphasize what he says on the subject, and possibly to bring out his point in even a clearer light. I will quote this passage:

"There is no more kind and indulgent parent than the Indian parent. There is no more obedient and tractable child than the Indian child. I never saw an Indian father correct his child either by word or blow, nor did I ever see an Indian child that merited correction. Obedience with them is a cardinal principle. Here is a lesson that civilized parents would do well to heed."

Never were truer words written. Remove the quotation marks, and the words might be mine. Often we hear the remark that certain unruly children are acting like little savages. The remark is a base slander on the little savage. If the white child would behave like his little red brother, there would be no room for complaint. I will bear witness to the same conditions that the doctor has observed.

As a rule, the Indian parent is not demonstrative, yet, with all their seeming carelessness, they ever have the child's welfare in mind. Touch an Indian child in anger, and see how quickly notice will be taken. Well do I remember when the new Agency teacher, a most exemplary young woman, slapped one of her Indian pupils. Little did she dream of the hornet's nest she had disturbed. Actually, the parents demanded her death; next, this failing, her immediate expulsion from the reservation. Things were finally patched up—how, I never fully understood—but she was permitted to resume her duties. But neither she nor any other ever dared to lay a hand on an Indian child again.

Fortunately, our clerk was a man who had lived years of his life among the Indians—very intimately, it must have been. He had the most wonderful influence over the Indians that I ever saw. He could mold them like putty; and it was through his influence and personal control that the matter was finally adjusted. I never saw or heard tell of an Indian parent who struck a child. A blow was considered degrading. I never heard an Indian parent yell an order to a child, yet in some quiet way implicit obedience was always required and given. Thus gladly I bear witness to the truthfulness of Dr. Moody's words

An Aurora Borealis

I will close this article with a description of a wonderful display of northern lights I once witnessed. The clear atmosphere of the Dakota climate rendered the celestial displays of all kinds a source of pleasurable wonder to anyone interested in such things, and I often found myself studying the heavens when I was out at night. There were more stars visible at all times than I ever saw elsewhere, and they twinkled more than I had ever noticed in other atmospheres. Northern lights were more often seen, and they were much more brilliant than I had ever seen elsewhere.

One night a brother employee called me out of my house to see the display. Never before nor since has such a sight greeted my eyes. The entire circle of the horizon was in motion, and the waves of light rolled and billowed to the zenith, where they seemed to unite into a monstrous rosette of shimmering flame. The general color was a rosy hue, and through these sheets of rosy flame could be seen millions of twinkling stars. It was the grandest, most awe-inspiring sight I have ever seen, and it made one feel utterly insignificant. I stood gazing at the wondrous display until my neck ached from holding my head back so

that I could look upward, and I finally went into the house reluctantly, simply because I was too tired to gaze any longer. It is beyond my power of description to give any intelligent idea of the wondrous beauty of that display. I had never dreamed of the like, and I never expect to witness a repetition.

The General Practitioner as a Gynecologist

Everyday Helps for Routine Work

By GEORGE H. CANDLER, M. D., Chicago, Illinois

IV

Follicular Vulvitis

THE sudoriparous, sebaceous, and mucous glands of the vulva may become inflamed, during pregnancy, from insufficient care of the parts or the presence of irritating discharges. Naturally, also, the follicles may be involved in simple catarrhal or in specific vulvitis. In the latter condition, however, the entire vulval surfaces are affected, and here the treatment for the primary disease meets all requirements.

The symptoms in uncomplicated cases are easily recognized. The parts are covered with small red papules which itch intensely. The mucosa between the follicles is not, as a rule, involved; the nymphæ and prepuce, however, rarely escape. In some instances the inner and outer surfaces are equally affected and the extraction of a hair will cause the appearance of pus.

If the condition has existed several days, the parts are bathed in a mucopurulent secretion and the odor, in uncleanly persons, may be most offensive. If the disorder is allowed to proceed, the urethra becomes involved and intense suffering results. At best the condition is distressing: the parts become hyperesthetic and the pruritus, smarting and stinging are described as "unbearable." Intercourse usually is impossible and urination extremely painful. Not infrequently the woman is unable to secure sleep, the pruritus seemingly increasing as soon as the patient becomes warm in bed. Should the male have access to an affected woman, he is likely to contract a stubborn urethritis. In one or two cases I have seen a marked vaginismus following intercourse.

The Method of Treatment

Treatment, if thorough and instituted early, proves speedily curative, in uncomplicated cases. A folliculitis due to pregnancy or the bathing of the parts in morbid discharges from the vagina or uterus will, however, yield only when the causative condition is removed.

The woman should be restrained from exercising unnecessarily, but it is rarely necessary to confine her to bed. Copious hot antiseptic douches should be ordered three times daily. A mentholated solution of the sulphocarbolates and boric acid has given me satisfaction. It is well to add an ounce of glycerin to each quart of solution. The vaginal antiseptic formula, well known to users of the alkaloids, also serves excellently. Before douching, the affected area should be sponged freely with the foregoing solution, or, otherwise, a mixture of 1 ounce each of liquid thuja and echinacea to 1 pint of water may be applied freely. After the parts are cleansed a gauze pad saturated with euarol or an antiseptic oil (carbenzol, 1 part; olive oil, 2 parts) should be placed in contact with the affected surfaces. Dusting powders may be applied externally.

If inflammation is severe and the nodules are filled with perverted secretion, excise with a sharp bistoury a dozen or so of the most prominent ones and express the contents. Then touch the cavities with a cotton-wrapped toothpick dipped in carbolic acid, and, after one minute, neutralize

with alcohol. Paint the whole area with a solution of silver nitrate (grs. 20 to oz. 1) and apply compresses wrung out of a carbolized solution of magnesium sulphate. As conditions subside, substitute the oily dressing or use equal parts of carbenzol and resin ointment, thoroughly mixed.

Internal medication is important. Thoroughly evacuate the bowels by means of small divided doses of blue mass and soda (or calomel) and podophyllin (aa. gr. 1-6), followed by a laxative saline draught. Order a glass of thin barley water every three hours, and instruct the patient to take with each drink 4 grains of ammonium benzoate in case the urine is alkaline; or an equal amount of the lithium salt if it is hyperacid. Small doses of hyoscyamine relieve pain and pruritus. Echinacea and calcium sulphide control suppuration. In all cases I find it desirable to secure two or even three stools daily. But very little meat should be eaten; fruits and vegetables may be consumed as desired.

Now and again an old-standing case will require excision of the tissues adjacent to the follicle. Under anesthaine or cocaine anesthesia, dissect away the diseased mucosa and nodular mass beneath, control oozing with adrenalin solution and coapt the edges with fine gut or horsehair. Strict asepsis must be observed.

Vulvitis of Diabetics

Not infrequently the existence of diabetes mellitus is first recognized when the physician is asked to prescribe for "a persistent and intolerable itching of the genitals." The patient, moreover, complains bitterly of the smarting and burning following urination. At the present time I have under observation a woman who for weeks was unable to secure more than two hours of sleep each night. Upon examination, the parts were found excoriated in places and elsewhere presented a parchment-like hardness. Several small furuncles existed on the mons and inner surfaces of the thighs. Other signs are a peculiar coppery hue of the region. A dry, corrugated skin also is pathognomonic. Naturally, scratching is indulged in and infection is almost sure to result. The discovery of sugar in the urine makes the diagnosis positive.

To effect a cure it is necessary, of course, to treat the systemic disorder; still, immediate relief of the local condition is insisted upon, and very much can be done to alleviate the patient's distress in a very short time. Absolute cleanliness of the parts evidently is essential. They should be sponged several times daily (always after urination) with warm carbolized epsom-salt solution or, what is better, a mixture containing aqueous extracts of calendula and of hamamelis, in the proportion of 1 ounce of each to a pint of water. The addition of 1 ounce of glycerin is good. At bedtime a creolin douche should be taken. Furthermore, it is well to order a copious enema of warm salt water. Excoriated areas should be painted with silver-nitrate solution (grs. 20 to oz. 1), and the parts smeared freely with a salve of equal parts of mentholated vaseline and carbenzol ointment. A solution of sodium sulphite (oz. 1 to qt. 1) quite often gives immediate relief. Pieces of lint soaked with the solution may be placed between the labia.

In desperate cases a mixture of equal parts of camphor, carbolic acid, and chloral, reduced to fluidity by trituration, may be applied carefully. Use 1 part of the fluid to 2 of liquid petrolatum. Furuncles must be opened and the cavities touched with carbolic acid or iodine tincture. The treatment of the causative diabetes cannot be touched upon here.

Pruritus Vulvae

This condition, so frequently encountered, is unquestionably among the *bêtes noirs* annoying the general practician. In every instance it is necessary to discover the cause, and this sometimes is decidedly a difficult matter. Senile pruritus is particularly rebellious to treatment. Occasionally the habits of an individual require to be changed before a cure can be obtained. Overindulgence in meats, sweets, or greasy or spiced foods may cause pruritus. Lack of cleanliness is quite frequently at the bottom of the trouble; so also constipation (retention of effete matter) is often the underlying cause.

In various diseases of the external genitalia pruritus is a symptom; furthermore, the condition may be due to the presence of parasites—we sometimes find pediculosis pubis in (apparently) quite cleanly and "smart" people. Irritating discharges, as has been stated, will, sooner or later, set up a pruritus, while sometimes fecal or urinary incontinence is responsible. Pruritus vulvæ is not infrequently a feature of the menopause, when it may be due to localized congestion or be purely of nervous origin. Lithemic women frequently present the condition: some are afflicted only in winter, others, however, in the summer months.

In obscure cases free elimination and the exhibition of intestinal antiseptics and antacids, together with copious douches, often proves speedily curative. It will be evident, however, that a very thorough examination of the individual is essential, and in every case the urine should be submitted to a competent pathologist. It must be borne in mind that in the very worst cases the objective symptoms are practically absent. The intensity of the itching of the parts cannot be gauged by the appearance of the tissues, though sooner or later rubbing and scratching will produce excoriations and thus increase the local congestion. Some women whose vulvas present a perfectly normal aspect are driven nearly insane by the itching which begins as soon as they retire. These are the patients, moreover, who most insistently demand relief.

(*To be Continued.*)

Chronic Nephritis

A Discussion of Chronic Parenchymatous Nephritis and Chronic Interstitial Nephritis

By HENEAGE GIBBES, M. D., C. M., L. R. C. P. (London), McAlester, Oklahoma

EDITORIAL NOTE.—This is the third and final paper of a series which has been prepared by Dr. Gibbes for publication in CLINICAL MEDICINE. *The two earlier articles appeared in the September and October issues of this year.*

I. CHRONIC PARENCHYMATOUS NEPHRITIS

MY two previous papers on nephritis treated of acute conditions, while this, the final paper of the series, will deal with chronic disorders of the kidneys; and the first to be considered is chronic parenchymatous nephritis. This is a morbid condition which in many cases could be prevented by care and attention. In a former paper the normal histology of the kidney has been described, and the convoluted tubes have been shown to be the parts which remove the extractives or solids from the blood and pass them into the urinary water, thus forming the urine.

In acute conditions with a favorable termination the parts return to their normal condition, new cells being developed to replace those desquamated, but when from any cause this morbid condition is allowed to pass into the subacute or the chronic state the fibrous connective tissue is affected and new fibrous tissue is formed.

A Brief Histologic Review

It will be necessary to review the normal histology of the organ or at least that part which is concerned in this disease. There is one point which should be kept in mind, namely, that in the kidney, and in fact in all organs of the body, there is only a small amount of fibrous connective tissue, only just enough to form a sustaining tissue for the organ; and, realizing this, it will be evident that an increase of this tissue can take place only by encroaching upon the parenchyma, or the functional parts. There is also another important point to remember, which is, that all fibrous connective tissue when formed under abnormal condition will always contract, as is well

shown in a scar, which when first formed is of a pink color but afterward becomes white. That is, when first formed the cicatrix contains numerous capillary blood-vessels, which give the pink color. As the new scar-tissue contracts it destroys these capillaries, now no longer required, and the scar changes from a pink color to white.

In the preceding paper of this series I have described an acute case of this disease and its termination. But if from any cause, such as erroneous diagnosis or careless treatment, the case does not clear up as it should do, we have an entirely different state. It must not be understood that the two causes given above are the usual or the commonest in this disease; in fact, the majority arise from widely varying, causes, and in some the onset is most insidious.

Physical Conditions Denoting Parenchymatous Nephritis

Be the cause what it may, when we find a case with progressive anemia, albuminuria, ascites, some dyspnea, and defective vision, we have our diagnosis made for us, and what we have to do is to get busy and reduce the symptoms, as we may be sure that the parenchyma of the organ is in a perilous state. But fortunately only a part of the uriniferous vessels are affected. And speaking from the experience gained at numerous autopsies, the conditions I have so often found are these: The kidneys were large, pale in color. On dividing them into two halves by a vertical incision, I have found plainly visible to the naked eye two different conditions in the cortex. On making sections after careful hardening and staining, I have found this state of things existing. Many uriniferous tubules were in the condition described in the last paper as acute parenchymatous nephritis, while others were entirely changed and presented the condition I shall presently describe as that pertaining to chronic interstitial nephritis.

Explanation of the Anatomical Changes Involved

Now for the explanation of this fact. Some years before (it may have been many) this condition set in, this kidney had been attacked by acute parenchymatous nephritis which had been allowed to pass into the subacute or chronic form. After a time the organ had apparently entirely recovered, while, actually, the state of the uriniferous tubules was this: some had recovered entirely, but in others the morbid change had been more severe, and in consequence their functionating power was entirely destroyed and they were represented by fibrous connective tissue.

Now, this might have happened years before the patient became aware that a portion of his urinary apparatus was quite useless so far as function was concerned. But at last he came down with *another* attack of acute parenchymatous nephritis, one which to the physician (who was probably entirely ignorant of the previous attack) did not seem very formidable. Still, the patient died, to the great surprise of the physician, who could not understand, until after the autopsy the state of the kidneys was revealed. It may seem to some that I am laying too much stress on this condition, especially since little is said about it in the textbooks; nevertheless, I have had under my eye so many cases where the condition described has been revealed after death that for years I have been calling it "acute on chronic"; and in my collection of microscopical slides of kidney disease this condition is shown to be a frequent one.

Some of the textbooks speak of chronic parenchymatous nephritis and say it sometimes begins insidiously and affects the connective tissue of the organ. If that is the actual state, it is not truly chronic parenchymatous nephritis, but is a case of interstial nephritis; for, to be parenchymatous, it must affect the parenchyma.

It is my firm opinion, derived from a careful study of many cases, that the term chronic parenchymatous nephritis as applied in the textbooks is made to include many forms in which the parenchyma is not primarily envolved. In some works the statement even is made that the disease is one of the connective tissue of the organ and cannot, therefore, be a parenchymatous nephritis.

II. Chronic Interstitial Nephritis

Coming now to chronic interstitial nephritis, it should be stated that this is a disease of the kidneys that has no acute stage but begins as a chronic lesion of the interstitial tissue, and often comes on so insidiously that it is not recognized until far advanced. I have seen cases not properly diagnosed until after death.

It is a disease of middle age, occurring as a rule after the age of forty. One of the earliest indications is a frequent call to urinate, and the amount passed is progressively increased. On examination, the urine will be found to be pale and of low specific gravity, sometimes as low as 1006. This distinguishes it from the largely increased pale urine of glycosuria, the specific gravity of which is high. Sometimes we may find a little albumin, while at other times there will be none. There is no ascites, but often a little puffiness of the eyelids is observed. In a case of this kind it will be evident that frequent examinations of the urine must be made until a positive diagnosis is reached.

Fully to understand this disease, it must be realized that it is chronic from the beginning. It is called an inflammation, but it is entirely different from the simple inflammation we find in scarlatinal nephritis. In those cases we have something carried through the organ by the blood, and this something possesses sufficient irritative properties to cause the tissues surrounding the blood-vessels to react against it and set up all the conditions of simple inflammation as described in the paper on scarlatinal nephritis.

The Various Forms of Kidney Disorders Classified

It is difficult to understand the peculiar characteristics of these different disorders of the kidney, and this difficulty is certainly increased by the lack of uniformity in the descriptions given in the textbooks. To simplify the matter, I will give a classification derived from a study of the nosology of these diseases and their post-mortem changes.

1. Scarlatinal nephritis is a simple inflammation in which there is inflammatory exudation in both kidneys, and in any part of them as it is caused by something possessed of the power of irritating while passing through the kidney with the blood current.

2. Acute parenchymatous nephritis. This consists in an acute change in the cells of the convoluted tubes. It is called an "inflammation," but it has nothing in common with simple inflammation. The cells are swollen and are thrown off from the basement-membrane within the lumen of the tube, where they undergo a fatty degeneration.

3. Chronic parenchymatous nephritis. This, strictly speaking, is a condition where the acute form has become subacute and the socalled inflammation has extended to the connective tissue around the tubes. There is no doubt that many cases of interstitial nephritis are included in this term, which they should not be, as they belong to the following, the fourth class.

4. Interstitial nephritis, or Bright's disease proper. This is an entirely different condition, one that is never acute, but begins as a chronic change in the blood-vessels and connective tissue throughout the organs. It is an insidious disease, in which the blood-vessels, the heart, and the uriniferous tubules are all affected. I have already pointed out that the amount of fibrous connective tissue in the kidney is very small, only just enough to support the tubes and to carry the blood-vessels. The kidney has a firm capsule which will not allow of expansion.

The Changes in the Kidney

This chronic change in the kidneys has been attributed to many causes, and alcohol has been among the foremost named, but it has been abundantly proved that only a very minute amount of the alcohol taken into the body is excreted by the kidney. It seems that there are cells in the body whose action is altered by the ingestion of certain substances, of which alcohol may be one, and they secrete some toxin which has the power of affecting the connective tissue and causing it to increase. Now, if we remember that the amount of this mechanically supporting tissue is very

small and, further, that when any excess is formed under abnormal influence it invariably contracts, we can readily understand how this newly formed tissue gradually contracts on the tubes and destroys them. This process is slow and insidious, more so in some cases than in others, and it is not universal throughout the kidneys; so we find that, while some tubules are obliterated, others have increased in size and taken on extra work. This is no theory, but the result of actual observation.

The blood-vessels of the kidney (and elsewhere) are also affected by this change. A vital part of a normal artery is its endothelial lining. This consists of a number of flat nucleinated cells, set edge to edge, and cemented together by cement-substance. It is, in fact, an extension of the simple structure of the capillary blood-vessel, and this structure is present all through the arterial system, even to the largest artery.

Counting from within out, an artery presents the following. First is the endothelial lining, and then comes the fenestrated membrane; between these two is a variable amount of fibrous connective tissue. In the smallest arteries the amount is so small that it is hard to make it out. It increases with the size of the artery. It is most important clearly to understand this, as it is this tissue that increases and lessens the caliber of the artery in Bright's disease. Outside the fenestrated membrane is the muscle-coat and outside this the adventitia.

Where the Vascular Change Occurs

The only part we need consider is the intima, that is, the endothelial lining and the fibrous connective tissue between it and the fenestrated membrane. The action of the toxin, whatever it may be, on the fibrous tissue in the kidney is also exerted on the fibrous tissue of the intima. The consequence is a growth of new tissue, which pushes the endothelial lining inward and lessens the caliber of the vessel. As a consequence the heart has to pump the same amount of blood through tubes lessened in size, and this requires more power. This results in hypertrophy of the left side of the heart.

The contraction of the abnormal fibrous tissue in the kidney causes the surface of that organ to become granular or rough, and the further growth of the new fibrous tissue, extending and involving that in the capsule, causes that part to become firmly adherent to the surface of the kidney.

This rough sketch of the pathology may be of some help in giving the physician an idea of what is going on in this most insidious disease. The diagnosis is often very difficult, and oftener still the condition is not suspected. There are certain suspicious symptoms which should cause the physician to make an examination of the urine. Among these are palpitation of the heart, persistent headache, frequent vomiting, impairment of vision, repeated epistaxis, persistent hoarseness, obstinate eczema, itching of the skin. These symptoms should prompt a careful examination, and, if there is then a suspicion of nephritis, a test of the urine should be made at once.

As has been already said, the amount of urine is increased, sometimes to double the usual amount, and the patient complains that he has to get up in the night. It is of a pale-yellow color, often having a pinkish tint and showing slight turbidity.

Hypertrophy of the left ventricle is an almost constant feature, and gives a heaving impulse to the upset beat. Hypertrophy of the left side of the heart often causes distressing palpitation, especially after mental or physical excitement and after taking stimulants, such as coffee, tea or alcohol. It also causes a hard, wiry pulse, which an experienced clinician will readily recognize as that of contracted kidney.

Treatment of Chronic Kidney Disease

There is no medicine known so far that has a curative effect on these diseases of the kidneys. The treatment must be dietetic, and the best diet is milk, as it is nutritious and does not irritate the kidneys; one and a half to two quarts a day should be given, and it is better if well boiled. If the patient cannot take pure milk it

may be mixed with weak tea or coffee or meat broth.

A tepid bath at 95° F., morning and evening, is beneficial, and the patient should remain in it for twelve minutes and great care should be taken that he is not chilled on his way to the bath.

The patient should be put in bed and kept there as long as there is any blood or albumin in the urine.

The room should be warmed and the bed also on his return to it. The same treatment applies to all forms of the disease. Wealthy patients can avail themselves of a change of climate and go to the edge of an African desert, which has been found to be the best climate for this disease.

In many cases buttermilk, when it can be procured in a pure condition, is preferred to ordinary milk and is better borne by a majority of patients with any form of Bright's disease.

It seems hardly necessary to call attention to the vast importance of attending to the elimination, which means keeping the intestinal canal as clean as it is possible to do by the aid of saline laxatives, for it must be remembered that the kidneys are as important as the alimentary canal in these cases.

Referring to what has been said as to the morbid action in the kidney itself, the necessity of attending to the kidney will be at once apparent. With regard to intestinal antisepsis, the matter is more complicated. In the first place no one with the most elementary knowledge of bacteriology will contend that it is possible to render the alimentary canal absolutely sterile. A few simple experiments will show this in such a manner as to convince the most skeptical. But there is a vast difference between attempting to sterilize the canal and destroying the toxins or toxin-forming substances that are doing the mischief. Any careful observer can convince himself of this by using an intestinal antiseptic, such as the sulphocarbolates, which are among the best, and watching carefully the results. He must admit that something has been removed which had a deleterious action on the parts concerned. Many pin their faith on these salts, and from results I have seen, they have a very good action; but I have not yet carried out a sufficient number of examinations to enable me to speak positively as to their value in any or all forms of Bright's disease. I am making a careful tabulation of results and shall report later.

Uremia and Its Treatment

I have left this part of the subject until the end, as it may occur in any form of the disease and therefore applies to all. Uremia is, in fact, an autotoxemia. It has been pointed out that certain cells in the uriniferous tubules remove substances from the blood and pass them into the lumen of the tubes, there to join the urinary water and become the solids of that fluid. If from any cause these extractives are not removed they accumulate in the blood and we have uremia. As has been stated before, to have a healthy action from any part, the nutrition of that part must be healthful and it stands to reason that the nourishing blood, carried to a nerve-center and which is full of effete matter which ought to have been discharged into the urinary water, cannot act as a healthful nutrient fluid.

Uremia may come on suddenly with a convulsive seizure and coma, which may be quickly followed by death, or it may come on slowly with a variety of symptoms, such as obstinate headache and neuralgia, which will yield to treatment. These may be considered prodromata and will put the physician on the alert to see first whether the elimination is good. It must, however, be remembered that there are cases where an attack of uremia comes on suddenly, with a convulsive seizure followed by death.

There are certain changes which point to an attack of uremia and these should be sought for. One is a sudden rise of temperature, and some authorities consider that this occurs in every case where an attack of uremia is pending. These uremic attacks closely resemble other conditions attended by convulsive seizure and coma, and it is always best to make frequent tests for albumin. Cerebral apoplexy may be mistaken for uremic coma, and *vice versa*, the points of distinction being that

the latter generally occurs in patients afflicted with dropsy.

In treating these cases, promptness and thoroughness are essential. If elimination has not been attended to, give small doses of magnesium sulphate. But in uremia the cases must be individualized and each one treated on its merits.

This description and classification of diseases of the kidneys is not intended to be perfect or even "up to date" in many respects. To have taken up the latest views on many points and discussed them would have destroyed the object of these papers, which is to help the general practitioner by enabling him to make a correct diagnosis in cases where he often is all at sea, not knowing the normal histology of the organ or the function of the different parts. I think any man with ordinary perceptive ability can, with a little study, make out that the function of the convoluted tubes is different from that of the glomeruli, and that the object of one is different from that of the other; yet the two combined are required to form the urine. And, then, when I look at the textbooks and see what purports to be a representation of a glomerulus in a case of scarlatinal nephritis, but which would do admirably for a representation of encephaloid carcinoma in a textbook published last year, will it matter whether the general practitioner is told that the urinary water passes from the blood by filtration or by secretion?

Referred Patients

And the Business Relations Arising in Connection With Them

By ARTHUR BOWLES, M. D., Ellsworth, Kansas

BEFORE considering in detail the subject-matter proper of this paper, it will be right to discuss briefly two propositions that have a direct bearing upon the questions involved.

First: It is universally true throughout our country that the average practitioner's income is barely adequate for the support of himself and those dependent upon him. The reasons for the existence of such a condition are beyond the province of this inquiry. Increasing centralization of wealth, high cost of living, and the "trusts" may indirectly be responsible for it. Among the direct causes is increased competition through overproduction of physicians. The increased needs of the physician in the matter of his professional equipment, including the automobile, static machine, and all the refinements of laboratory and office furnishings, things unknown to our predecessors, can almost be called necessities at the present day. Low fees and tardy payments are still actively with us, as of yore.

The second proposition is this: Under present-day conditions, it frequently becomes necessary that the general practitioner refer a patient to another physician for treatment. The reasons for this are patent to the entire profession. Briefly, they are the recognition by a physician that his patient needs diagnostic or therapeutic assistance which he himself is not competent to render, and that there are men within easy reach who, by reason of special equipment, training or ability, can supply the needful service. Consequently he feels it his duty to summon this man in consultation or else take the patient to him.

The Need of the Laboratory and the Consultant

The need of increased refinements, in the way of laboratory diagnosis, has been admirably met by the establishment of clinical laboratories in all of our cities. In any case where the patient is able to pay for the work, the general practitioner may invoke the aid of the laboratory to assist him in clearing up a doubtful point, while at the same time he keeps the case absolutely in his own hands.

In the matter of treatment, however, the conditions are not so ideal, and the physician often is obliged to invoke the aid of an outsider, who thereby becomes a sharer—but rightly no more than a sharer—in any profits that may accrue. But only too often the second physician absolutely displaces the first, taking the case entirely into his own hands, not alone professionally but in a business sense as well.

There is, unfortunately, no way of getting around the fact that referring of cases is unavoidable in the practice of every honest physician, because no single man has the equipment or the ability to care properly for all the cases that come to him in the course of a general practice.

The general practitioner is primarily and specifically a diagnostician and an internist. Of course, he generally dabbles a little in eye, ear, nose and throat work, including performance of paracentesis of the ear-drum, treating ordinary cases of otitis media, inflating the eustachian tubes, caring for the simpler cases of ocular disease and of nasal catarrh, and so on. He may or may not remove polyps, tonsils, adenoids. He is an obstetrician of no mean ability, and generally, to a minor extent, a surgeon.

The Limitations of the General Practitioner

But in all of these directions his ability, technic, and equipment are limited. For instance, he cannot use, nor does he possess, a bronchoscope or a gastroscope, but he knows of a man in a nearby city who is familiar with their use. He encounters a case where he knows such an examination would be useful, and there is only one proper course open to him—he must refer his patient to the man who can render the needed assistance. The same is true of the cystoscope and of ureteral catheterization.

But it is in the department of surgery that the majority of referred cases will occur. It is not only the lack of equipment and undeveloped technic that prevents the physician from assuming the total care of his surgical cases, but the further fact that the required special nursing and hospital facilities can only be found in an institution devoted to that purpose. Hence the doctor without hospital connections frequently is forced to turn over his patient to the surgeon and hospital operating room.

Now, inasmuch as the average doctor needs money to live, there has arisen, as a direct result of the conditions confronting him, the practice of the division of fees, or "fee splitting," as it has rather contemptuously been termed; and it is with this question that I intend to deal.

The Ethics of Fee Splitting

In every referred case there are three people who have rights to be considered: the referrer, i. e., the general practitioner; the referred, otherwise the patient; and the referree, or surgeon—taking the surgical case as the usual type of referred cases. The ideal may be said to have been attained when each of these three interested parties receives from the transaction just and fair treatment, both professionally and in a business sense.

Though much written about in the past few years, this important question has not been thoroughly reviewed impartially from all sides; and I say this deliberately and advisedly.

It is important, because it affects the welfare of the entire profession. It affects directly, in one way or another, the income of every one of us. If the division of fees be wrong, then we must know it, and put a stop to it. If it be right, then it must be recognized and legalized within the profession, and apologies presented to those who have been called grafters and bribers, on account of their having lived up to their convictions in the matter.

To call it wrong, does not by any means make it so. Many articles, some of them lengthy, have been written in denunciation of it, while only a few scattered letters have been printed in its defense. However, the articles against it have been mostly illogical diatribes. The defenders have been weak apologists, writing as though the authors had the idea that they constituted a weak minority and were supporting a lost cause.

As a matter of fact, the practice is general throughout the profession, though the

attempt is made to keep it *sub rosa*. Men denounce it in public while practising it in private. It is inveighed against in the meetings of the county medical societies, but the close observer may see a smile and a wink back of the utterances.

Most of the articles written concerning fee splitting have been, as I said before, denunciatory, and not analytic in character. They have been composed by men who always look from the same side of the fence, and refuse utterly to take even so much as a glance from the other side. It has been assumed as a premise that the condition was and is an unmitigated evil, and a thing to be stamped out.

Yet, to deal logically with the question, it seems to me that the premise must first be proved, and to my knowledge no attempt has been made to do this. The surgeon and physician who are known to have divided the joint fee received for a surgical case have been termed "fee-splitters" and regarded as professional lepers, upon grounds the tenability of which still remains to be proved.

Let Us Be Sincere

Another point: In the investigation of a moot question such as this, it is of the first importance that the articles dealing with it be sincere. Even if not brilliant or scholarly, or even if the conclusion reached be erroneous, better that than that they be unfair and hypocritical. And the latter has often been the case. Many, many times the division of fees has been criticized in the columns of our medical journals, the physician being referred to as a grafter and a bribe-taker and his surgical companion as a bribe-giver, by men who privately pursued the same course they so vigorously railed against. And because this has been so, and because the bulk of the general practitioners throughout the country know that it is so, the whole matter has become ridiculous, and has not been treated with the consideration due it.

The physician reads an article condemning the "split-fee," and laughs, because he himself, perhaps, has received from the writer of it a fee collected from a surgical case referred to the writer by himself.

In the first years of my practice, shortly after I had been graduated from medical college, I was located in a little hamlet. I had occasion to take a surgical case to a man of high reputation and of great ability in a nearby metropolis. It was the first case I had referred to him. He looked the case over with me at the hospital, agreed with the diagnosis, fixed the time for operation, and we drove away together.

Said he: "Now, doctor, I don't pay a commission for surgical cases; it looks too much like trafficking in patients. But, I am willing to make a charge for you to repay you for your trip and trouble. I will charge the patient one hundred dollars and make a charge of twenty-five dollars for you."

I said, "Thank you, doctor; that will be satisfactory to me." And it was so.

But why this beating about the bush? How much better had he said: "I will collect the entire fee, because it is easier for me to make the charge, and will give you twenty percent, for you are entitled to that much."

That man is not crooked, he is not a grafter. He is an able surgeon and a conscientious man. I later came to know him well, and did a great deal of work with him, and today I respect him and his ability almost above all others I have known or seen. That is how the matter appeared at the time, to me at least; not as a wrongful act, but as a foolish and unnecessary evasion; and I am sure that is the way nine out of ten average physicians would regard it.

Can the Matter Be Equitably Adjusted?

But to get back to our original discussion. How can the matter be settled so that all concerned receive the greatest professional and business consideration?

Let us consider the matter, first, from the standpoint of the general practitioner, the man who refers the case—the local doctor. What are the relations that should exist in a business and professional sense between him and his patient, on the one hand, and the surgeon to whom he refers his patient, on the other? This last sentence contains two words that merit a passing consideration.

I alluded to the referred patient as "his" patient. Of course, the proprietary interest that any physician holds in any one of the patients under his care is always a rather uncertain item. It is so of necessity, because founded upon an uncertain basis, the constancy of a sick human being —his patient—and a worried and often doubtful aggregation of that patient's relatives and friends.

Theoretically, the physician can terminate his connection with a given case at any time he sees fit, by voluntarily relinquishing the case; practically, he never does so. Our first preliminary proposition explains why this is so. In a few words, he needs the money. The second party to this unwritten contract, the patient, also is able to terminate the relations at any moment by dismissing his doctor. But, in the event of his not doing so, as long as he remains voluntarily under the care of his original physician, the case, in a professional sense, "belongs" to the latter. No other medical man or surgeon can ethically have a share in the care or profits of the case without the consent of the first man.

Well, then, the doctor has his "case" and must look after it, and is entitled to an adequate recompense for any services he may render. It turns out, let us assume, to be a case requiring surgical intervention. The doctor has made repeated examinations, has had the patient under treatment for some time, and has been charging his regular fees. If the patient visits his office, the charge is, say, one dollar or two dollars, and he does not put down a charge of five or ten dollars simply because the case may eventually turn out to be a surgical one. At last, convinced that an operation is a necessity, the doctor has a talk with his patient, shows him the why and wherefor, and gets his consent.

(To be continued)

Medical Reforms and Mexican Troubles

By ROBERT GRAY, M. D., Pichucalco, Chiapas, Mexico

HOMOGENEOUS concert of principle and purpose is incongruous with human nature; and this lamentably so among the medical fraternity, where the weal of suffering humanity calls aloud for harmony and concentric operation.

The great and burning issue of all time is now confronting the pomp and power and indifferent vanity of the medical profession, namely, the tremendous responsibility of helping toward human betterment and elevation; and the August issue of CLINICAL MEDICINE demonstrates the alarming sweeping antagonism provoked by any radical, heroic proposition to prune at the tap-root—in good sooth a somewhat gruesome process of treatment.

It were impossible to launch any method of reform that would pass muster without opposition, or that could be reduced to practical employment without becoming an instrument that would be abused for purposes diametrically contrary to the object of its true purpose.

"The limitation of offspring" most certainly would not be immune from illegitimate employment by unmarried women. But what monstrosities we now have instead! Turn to the last fourteen-year report of the vital statistics of civilized and refined France, and ponder over the five million ovariotomy operations performed on women in that lapse of time; then conjecture, if you can and have the heart, the enormous numbers of such operations performed clandestinely, where the law forbids, and no reports are made. Then concentrate the pensive chamber of your brain on the lugubrious shambles of abortions through the refined medium of scientific medical auxiliary or the brutal ignorance of clumsy barbarity, where gestating life is stifled through the cupidity of shame or the maddening impulse to curtail the increase of an already excessive family.

Which, then, of the various methods of avoiding the responsibility of childbirth is the most criminally culpable? My con-

science would unhesitatingly accept the cast of arresting the process in advance of germination, as I do not believe that any state of circumstances could justify the destruction of the embryo save in the dire extremity of preserving the life of the prospective mother.

There is no preemption on any secret method of evading pregnancy; any scientific physician who is a passable master of chemistry knows all that any specialist or plausible discoverer could teach him. The means that are perfectly harmless cannot be a vital question; the popular verdict for or against the innovation is the pending problem. If public sentiment desires such method to become in vogue, the requisite laws will be enacted.

The Misery of Poverty, Ignorance, and Excessive Fecundity

A ramble amid the slums of London or New York affords peeps behind the scenes of sick life that are an unanswerably eloquent protest against the existence of any such execrable hives of human wretchedness and infamous immorality, indubitably traceable to the excessive production of human misery. The United States waged a war, unparalleled in history, to abolish human slavery in the South, that enthralled the poor children of nature in a most relentless bondage amidst mock freedom and a condition incompatible with true liberty. The state of those emancipated wretches today is a menace to the maintenance of peaceful equilibrium in the country, with no promise of future betterment; vice and disease preying upon them atrociously, so that their progeny steadily declines to ever profounder depths of degradation, and this after nearly half a century of nominal freedom.

Go into the overcrowded tenements, where the bone and sinew of American industry and slavish toil reside, and scrutinize the unfortunate state of excessively large families, beyond whose ability it is to provide the bare necessaries of life—ignoring even ordinary comforts—the young certainly should have to render life tolerable. The but half-suppressed sighs of the nameless anguish of the silent mother is truly pathetic as she toils and stints in her cheerless home—a lot she began in bouyant girlhood, full of happy hopefulness, cheered by young Love's fond dream.

But let us pass on to darker hopelessness, where the outcasts and the insane are enthralled, where petty authority lords it over misery and woe, where not one ray of promising hope illumines their sad lot.

In this world of woe charity abounds and there is philanthropy galore, but still the labor of love, inspired by the impulse of generous hearts, has reared and left the saddest monuments of failures of noble purpose and effort that have disappointed modern civilization, and seemingly only because the execution has ever been in the hands of political riff-raff. The only popular institutions whose mission is the alleviation of suffering and misery that are not yet dominated by heartless unhumanity are Red Cross women and trained nurses; but there is no prison nor insane asylum anywhere immune from that sheer brutality so inimical to the primal object as to defeat any possibility of betterment of the poor inmates.

For these reasons, the best interests of society demand the destruction of the criminal and vicious classes and the eradication of diseases transmissible through the hereditary channel by sterilizing those individuals, besides employing whatever other means may be practicable to keep the propagation of the race within equitable bounds.

The Doctor Must Be the Guide and Teacher

But most of such measures are dependent for their execution upon popular education, so that they may not be put into operation too suddenly and violently. And the medical profession and the public must understand and bear in mind that the only legitimate and practical schoolmaster is the family physician. He is the one to instruct the parents in their duty toward their offspring, and also to inculcate in the plastic minds of the tots, as they grow up to intelligent appreciation, what is best and safe for them, thus instilling into the very fibers of their being ennobling impressions that will live in their souls to the end.

Millions of victims roam the earth in wretched destitution this day, for the reason that they were not schooled in the nursery of home to recognize the perils that would early beset them in the strange and unknown pathways of life, with no timely warning to guide and put them on guard against the quagmires and pitfalls they would meet unawares. Their parents told them nothing; their pastors spoke to them in enigmatical mystery; their preceptors left them in the dark, as to the masked dangers lurking in silent ambush to entrap them. They embarked on the voyage of life, strangers in an unknown world, ignorant of, not their possible, but their almost certain evil destiny.

These are no irrational dreams of a distempered mind grown wild amid the silent umbrage of torrid solitude, but they are startling truths evolved from meditation too intense to be indulged in amid the civilized distractions of populous centers. The weird pathos of loneliness calls up to view the sad portraiture of sick life as it languishes in want and woe in so many haunts of wretchedness or masquerades in gilded disguise that breaks the heart with a goading misery the lips have no power to express—a nameless agony hovering on the brink of suicidal madness.

Such awful sick life, cursing the very ranks of nominal activity, have their source in social and moral error but which prudent propriety might measurably avert. Sheer want and disease are ills inimical to the economy of benignant nature, whose plan and purpose designed for mankind a century as the minimum of healthful life.

Unhappy Strife-Torn Mexico

How sadly mournful is the aspect of the shore of this fair and sunny land, whose genial atmosphere distils the quintessence of discord and anarchy, over whose smiling florescent face the withering blight of revolution, the scourge of grasshoppers and the pestilence of smallpox and pernicious fever chase each other in prodigal wastefulness, while over all are heard the low, ominous distant mutterings of a devastating fraternal war. The intelligent, industrial and commercial element—save the few hoping to profit by office or other emoluments—is experiencing a chill of indifference over their recent frantic enthusiasm for Madero, much of which was superficial, actuated by the seeming certainty of his success, in the latter end of the conflict, as hordes of prisoners released from jails and of laborers influenced to leave their employment augmented his ranks.

Here in this Department, where there was not a company of federal troops, a small party, mostly composed of liberated jailbirds, came from the state of Tabasco, taking horses and other valuables from the plantations and money and goods from the stores and banks, burning all the public records, damaging the community to the extent of several hundred thousand dollars, while recruiting from jails and plantations until this rabble horde numbered a thousand or more. They then went back to Tabasco, where they left a large belt of the state practically in a condition of famine, the revolutionary movement having prevented due planting of crops and grasshoppers having destroyed what little there was growing. At the same time smallpox is decimating the hapless population of the same belts, in addition to which, pernicious fever, closely approximating that of yellow-fever in the United States, now rages in its most virulent form.

It is pitiful to contemplate the masses of this people in their superstitious ignorance, dreaming the sweet, fond hope of freedom—a strange, evasive phantom, which, in the minds of the semisavage element of the peon masses, means the opportunity to act and do without restraint, as the wish may dictate. The middle and upper classes are qualified for liberal republican institutions, but they, unfortunately, are not united. Furthermore, there is a large element saturated with the bandit spirit, all of whom operated under the auspices of the Maderistas, and these exercise a most pernicious influence over the peons, which comprise more than seven-tenths of the Mexican population.

It is now almost a foregone conclusion (at the end of August) that General Reyes will poll a stiff majority of votes at the October elections; in which case the country will

await with bated breath to see whether Madero does not cry "fraud" and raise the standard of revolt, supported by office seekers, bandit spirits and the great peon constituency, that would be almost solid for him, and extremely dangerous, with arms and intelligent guidance. The chief hope of the country, in such contingency, is that the provisional government has the machinery of war and that the army element favors General Reyes; which is true of many of the Madero forces that yet retain their arms; and the further fact, that the United States would view a new Madero revolt with disfavor, may serve as restraining influences to acquiesce in the result of the impending popular election—an election that will probably be fairer than most elections are in the United States. [As our readers, of course, know, Madero was elected.—Ed.]

The Tragedy of a Perishing Race

The sick life of Mexico is pathetic, gasping over the tomb of dead and nameless nations, a rapidly perishing nation, or rather race, destined to disappear, as to its primal purity, in less than two centuries, at its present rate of decadence. Although these people are probably the most prolific breeders on earth, yet half the children born perish during childhood or youth, while the masses of the full-grown fall by the wayside in middle life or earlier, so pernicious is the venom of their vices. For all that, the children, as a rule, are healthy and promising till they attain the age when they begin to participate in the vices of eating dirt, smoking strong tobacco, and drinking new rum; this tendency to the suicide of the race being due to the degrading influences following in the wake of the invasion of socalled Christian civilization.

The sick life of the emancipated African race in the United States, of the native enslaved people of Mexico, and that of the teeming human hives of China and Japan (the latter of whom will overflow and swarm, seeking conquests on the shores of the Western World) is the menace, for discord at home surely will invite powerful foreign armadas to set sails for those shores. America indeed needs a strong, robust population, such as some radical internal change must develop or Jovian wisdom may conceive.

The Necessity of Preventing Propagation of the Unfit

As to Dr. Robinson I know nothing personally, nor do I care; albeit I know he says things, mail-clad in invulnerable truth, that will outwear and out-tire his detractors who impotently hurl at him their frothings. It were irrational to presume that he or any other, or a host of others, could conceive and formulate any process that would not be subject to modification to render it practically useful; but this does not imply the absence of the germ of a vital truth proposed. I subscribe for his various journals and buy his books; and I read his writings in other journals, if not always with pleasurable approbation, certainly with the result of profitable instruction. We need scores of men with courage to utter unpleasing truths; for nothing is pleasant that may tend to social betterment and moral elevation, through purifying mediums.

While I would recoil with indignant abhorrence from the violent destruction of criminal and vicious and incurably diseased elements of society, yet I would not hesitate one reluctant moment to blight their chances of propagation by enforced sterilization. I would make mankind sound and respectable by any means not brutal or criminal, and would regulate a superfluity of family membership by such means as no one has as yet suggested but that some bright, studious mind may perchance yet discover.

We recreant brethren of the medical fraternity are the shepherds of the perishing flocks which the church and the law have failed to rescue from the rapine of wolves, and the storm, and the night; and I have the biggest and the most hopeless flock under the care of any American; yet there are beautiful households of healthy people amid both the poor and the wealthy, thus clearly indicating the possibility of humanity's betterment, whose sick life is not the diseases that ravage; for the ills of the flesh are only the consequences of the sick

life that enthralls mankind in so many forms. In the healthful homes of the people around me there abides the ideal of real, glorifying family and social happiness; here you find the fond young woman proudly joyful among her budding flowers of love; this is the land of the divine passion in its most intense earthly reality, this torrid glowing sun above keeping the wholesome harmonies of the heart strung to the highest key.

The Cure of Bunion

By BENJAMIN H. BREAKSTONE, B. S., M. D., Chicago, Illinois

Professor of Clinical Surgery, Bennett Medical College; Attending Surgeon, Jefferson Park Hospital; Member of the Consulting Staff, Cook County Hospital; Consulting Surgeon, Mary Thompson Hospital

EDITORIAL NOTE.—This article continues Dr. Breakstone's exceedingly interesting series in "Everyday Surgery." Every reader of CLINICAL MEDICINE *should read these papers in their entirety.*

OF all the affections of the foot, bunion is both the most painful and the most troublesome. As yet this is also a subject to which the regular profession has not given proper attention. This affection is so common that it seems

Fig. 1. Anesthetizing the operative field

to me the profession ought to be very much more informed of it, than even of bronchitis, typhoid fever, etc. Our neglect of this subject has put the treatment of this ailment into the hands of more or less ignorant quacks, who, however, are very well informed about this condition, both from theory and experience.

Bunion* is a real exostosis, usually of the inner proximal part of the proximal phalanx of the great toe, with a synovitis of the metatarsophalangeal joint. Normally the line of the inner side of the foot should be direct and continuous to the distal end of the great toe, so that there is quite a little space between the great toe and its next fellow, unlike the spaces between the other toes, which practically come in direct contact with each other. In bunion, however, beginning at the metatarsophalangeal joint, there is an outward deviation from this line, the angle beginning at the joint, and the amount of deviation varying with the size of the bunion, so that there is really a dislocation of that joint, in addition to the exostosis.

The cause of bunion, I need hardly mention, is the wearing of improperly fitting shoes.

Fig. 2. Laying bare the capsule of the joint

The cure of bunion, it stands to reason, will mean the removal of the pathologic conditions causing the deviation, and the restoration of the normal line of the inner side of the foot. The latter means an osteoplastic operation, which formerly I

*From bunny: O. F., buigne, a swelling. German, fussschwiele; French, oignon. There seems to be no technical term, except the obsolete "tuber verrucosum." "Chronic valgobursitis" might, in a way, describe the condition.—ED.

performed under a general anesthetic, but latterly I have found that it can conveni-

Fig. 3. Division and elevation of the periosteum

ently and satisfactorily be done by the use of a local anesthetic.

There are two methods available for restoring the normal foot line, depending, of course, on the conditions present. If there is not a synovitis present, the exostosis may be simply chiseled off, the dislocation reduced, and the toe brought into line and held there by a plaster-paris cast. The other method is the chiseling out of a wedge-shaped piece of bone from the base of the proximal phalanx of the great toe, the distal end being approximated to the proximal end, and the toe held in line by a plaster cast.

It is usually advisable to combine both methods, that is, to chisel off the exostosis

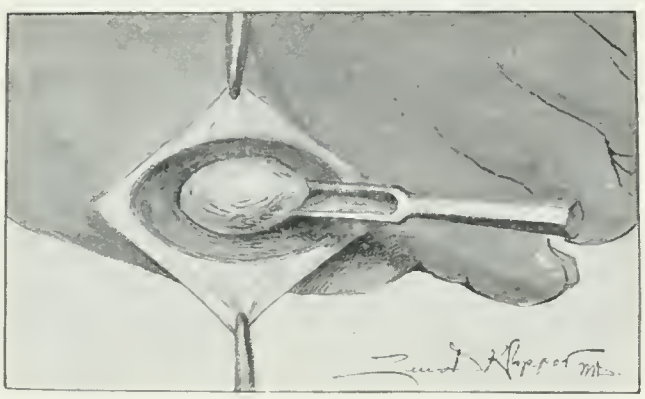


Fig. 4. A wedge-shaped piece of bone is chiseled away

at the base of the great toe, then to take out a wedge-shaped piece transversely, and then bringing the distal end of the toe in line with the proximal end, so that the line of the inner side of the foot is restored to normal and maintained that way by the use of a plaster-paris cast or by splints.

Recently I have been using splints rather than plaster-paris casts, as they are lighter, are easily removed, if necessary, and just as efficient. In former days, when this operation was performed under a general anesthetic, it was, as a matter of course, in the eyes of the patient a formidable one; for all that, these patients suffered so much that they were willing to leave their business and go to a hospital and have this operation done. However, in the ordi-

Fig. 5. Indicating the position of the great toe after replacement

nary walks of life this operation may be done at the physician's office, and the patient need lose no time from his occupation; or he may have it done on a Saturday afternoon and go to work on Monday, providing his occupation is not of the strenuous kind requiring great strain upon his feet.

When this operation was first done under local anesthesia in my clinic, I used the plaster-paris cast, fearing the patients would use their feet too much and then again dislocate the toe. However, I have been able to dispense with the cast, except in patients who must do quite a little walking, in which case I still resort to the casts

or to plaster-paris splints. But under ordinary conditions I use wood or fiber splints.

The solution used as the local anesthetic is introduced along the line of incision, which is approximately an inch and a quarter long at the inner side of the great toe at the metatarsophalangeal joint, as shown in Figure 1. The incision is made down to the periosteum and the capsule of the joint (Fig. 2). The periosteum is divided and elevated, and with sharp retractors the incision is held apart and the exostosis chiseled away, as shown in Figure 3. Then the wedge-shaped piece of bone is chiseled away, as shown in Figure 4, and the distal end of the bone brought in contact with it so that a triangular space—the apex being at the base of the toes—remains between the great toe and its neighbor. The periosteum is then sewed up with fine cargut, the rest of the tissues are brought together with silkworm gut, and then a dry dressing is applied. Then, with a wooden splint and adhesive plaster, the toe is fixed, a bandage applied, and the patient walks home. The position of the great toe, after replacement, is shown in Fig. 5. The splint is removed in from three to four weeks, when the patient is told to wear wide shoes in the future.

The wound is dressed as frequently as is necessary. The incision, of course, having been sewed together, the stitches will require removal at the end of ten days.

The instruments required are: knife, scissors, small chisel, mallet, periosteal elevator, tissue forceps, several artery-forceps, needles, and hypodermic syringe.

The Booster's Creed

By HOMER CLARK BENNETT, M. D., Lima, Ohio

1

We believe in the things that we're handing out,
And hand out the things we believe;
We have faith in the God we are talking about,
From whom we our blessings receive.

2

We believe we are able to get the results
When working, not shirking, our task;
We believe that a booster no knocker consults,
And we get what in faith we but ask.

3

We believe it is best to do one deed today,
Than tomorrow to have two things begun,
And the future will find many plans under way,
With hope for much more to be done.

4

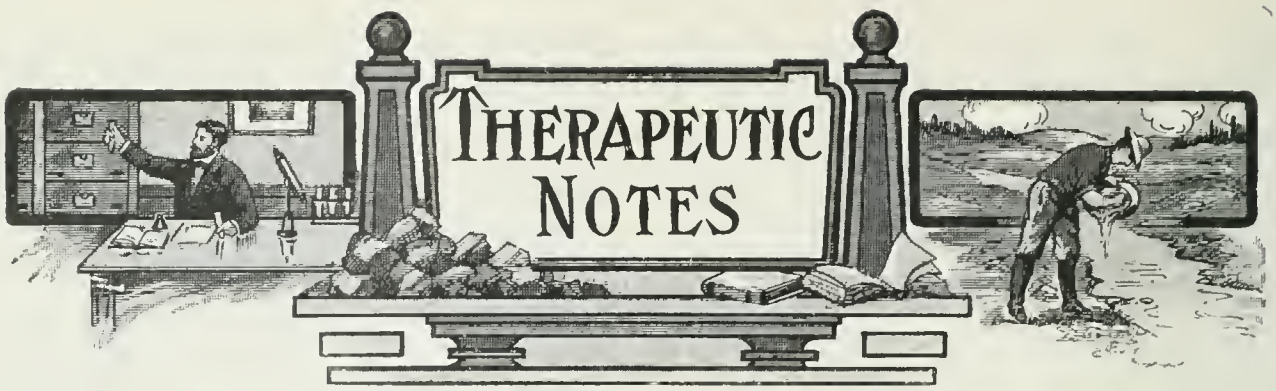
We believe that no person can "down and out" be,
Even though in himself all faith dies;
We believe there is some good in each man we see,
And our job is to help him to rise.

5

We believe that courtesy, kindness and cheer,
With generous friendship and love,
When used in our business, will bring heaven near
And praise from the Master above.

6

We believe there is something for each one to do,
Sometime, some place, and somehow;
We believe we can do it, and we believe, too,
We are ready to do it RIGHT NOW.



PHENOLPHTHALEIN IN THE URINE

Brandeis has found phenolphthalein in the urine of persons taking that substance as a laxative; due to alkalization, the color of the urine was red, as if from blood.

POISONING BY SHOE BLACKING

Rivière reported a case of poisoning, in a boy, by the aniline with which his shoes were dyed. He fell into syncope, the pulse weakened, the skin and mucosa were blue. The urine contained methemoglobin and hematoporphyrin. Recovery was rapid.—*Ann. de Med. et Chir. Infant.*

GUAIACOL CARBONATE AND ARSENIC IN TUBERCULOSIS

A. Jacobi (*Medical Review of Reviews*, June, 1911) treats no case of chronic pulmonary tuberculosis without guaiacol carbonate and arsenic, and says that he is doing well. Nor in chronic pulmonary tuberculosis only. He treats no tuberculosis of bones or of glands without them. In bone inflammations, such as of the vertebræ, fingers or ankles, he has given, since Wegner's experiments and experience of the year 1869, phosphorus besides.

MAGNESIUM SULPHATE IN CHOREA

Rocaz treated four children with grave chorea by subarachnidian injections of magnesium sulphate, securing rapid cures. Having withdrawn 0.10 Cc. of the cephalorachidian fluid, he injected 0.02 Cc. of a 25-percent solution. The action was rapid, the choreic movements ceasing in a few days. The inconveniences were headache and pain in the back and legs. These were lessened or prevented by a precedent injection of atropine. Hemiparesis and torpor were alarming but of no consequence. No renal accidents were observed. Cruchet preferred weaker injections at first: 10-percent strength, gradually increased.—*Ann. de Med. et Chir. Infant.*

CALCIDIN IN VOMITING IN PREGNANCY

A Wisconsin correspondent states that he has been able to secure relief in every case of vomiting in pregnancy through the use of calcidin, of which he gives two grains every two or three hours. This is a simple remedy and every doctor can try it. Let us have the experience of others.

GENERAL PARALYSIS TREATED WITH SODIUM NUCLEINATE

Dr. W. de Holstein, in *Bulletin Médical*, states that there have occasionally occurred cures of this disease, or at least of its symptoms, following prolonged suppuration, with septic fever. Thinking that this cure might be due to the increased leukocytosis, he has been treating these cases with hypodermic injections of sodium nucleinate, using 1-2-dram doses in a 10-percent solution, giving one injection every three or four days.

He has treated twenty-two cases of general paralysis in this way. Of these, 4 were improved, the improvement having continued for nearly two years in one patient, and for nine months in another. Four of the patients subjected to the treatment died. Not one of the control

cases showed any improvement and 8 died. Considering the usually hopeless character of this disease, the showing is an encouraging one.

HYOSCINE-MORPHINE IN OBSTETRICS

The July number of *The Practitioner* has an interesting article on "Hyoscine-Morphine Anesthesia in Obstetric Medicine," by P. L. Giuseppi, M. D., F. R. C. S. Dr. Giuseppi concludes, that "in hyoscine-morphine anesthesia we have an efficient means of controlling pain, and one that is practically safe, when ordinary precautions are taken."

McBRIDE'S "SPECIFIC" FOR DRUG-HABITS

McBride's specific for alcohol and drug habits is the hypodermic injection of atropine and strychnine in gradually increasing doses. By this, he claims to cure these habits in six weeks, without restraint, the cure being permanent; producing a revulsion against alcohol in any form. He confines his efforts to those who wish to be cured. The difficulty in these statements is the common fault of logic—they are not true as to the universal application. All patients can not be cured by a single remedy or method; nor can all cures be permanent.

CURES OF TUBERCULOSIS

An English sanatorium reports 90 percent of cures of patients treated in the early stages of tuberculosis. Of cases partially advanced, 60 percent were earning their living. Of cases out of the institution from four to ten years, 44 percent were alive, in full vigor and health, and thoroughly cured. The patients are treated in the open air and open pavilions at the outset, maintenance costing six dollars a week for each. That is certainly an encouraging report.

ACUTE ANTERIOR POLIOMYELITIS

Leiner and Wiesner (abstract in *Wien. Med. Woch.*, 1910, col. 1897) could show by experiments on monkeys that the virus of poliomyelitis may remain virulent for some time in the spinal cord and that from there it may pass into the regional lymph-glands, whence it is then eliminated through the mucous membranes of the nasopharynx. The intestinal tract and the uropoetic system are not of importance for elimination. The authors believe that the disease must be considered as a purely contagious one and that lifeless objects probably do not play an important role as carriers, because of the slight power of resistance of the virus.

PHYSIOLOGIC OVERTREATMENT

There is not much danger, in these days of therapeutic nihilism, of drug-overtreatment, but there is great danger of overtreatment of other sorts, says the editor of *Therapeutic Medicine* for October, 1910. Just as much, if not more, damage is done through nonmedicinal overtreatment as was ever done with drugs. "What with the taking of temperature, the giving of enemata or irrigations, the administration of food, bathing, etc., every hour, indeed one might truly say every minute, is sometimes utilized and the patient simply persecuted. Charles G. Kerley and Beverley Robinson have both called attention to this error recently and warned us against it."

THE TOOTH-BRUSH LEAGUE

According to the Baltimore *Sun*, one of the results of the establishment of playgrounds in that city is the formation of the Tooth-Brush League. The *Sun* says: "When the playgrounds were opened at the beginning of the season two trained nurses organized the league, and the result is that a thousand youngsters of both sexes, who had not been trained in tooth-brush exercise, have been taught to brush and scrub their teeth until they have become things of beauty, and will be joys to their owners much longer than would have been the case but for this awakened interest. Prizes will be distributed next week among those who have been most successful in the scrubbing operations and can show the whitest teeth. Care of the teeth has been shown recently to be so

intimately related to good health and increased mental and physical efficiency that if the playgrounds movement had accomplished nothing but its successful toothbrush crusade its value would be great."

TREATMENT OF BURNS

Dr. W. R. Ingraham, in *The Scientific American*, says that the most satisfactory remedy he has found for superficial treatment of burns is picric acid, which relieves the pain almost instantly. It may be used in the strength of 1 in 200 (about one-third teaspoonful to a pint of water), or in a saturated solution. It is antiseptic and will prevent suppuration. It stains the cuticle, of course, but the stains will disappear in time. It may be applied on strips of gauze wet with the solution.

In treating deep burns, the physician must be somewhat careful, especially in securing antisepsis. Dr. Ingraham recommends sterilizing the basin in which the solution is to be effected by pouring a little alcohol into it, rolling it about so that every part of the basin is moistened, then igniting it. Then, from the teakettle, pour in water that has been boiled, and add the picric acid; when dissolved, allow to cool. Bandage the burn with clean, aseptic gauze and saturate it with the solution. Blisters should be opened with a sterilized needle and the contents pressed out.

HOME-MADE ASEPTIC GAUZE

Dr. W. R. Ingraham (*Scientific American*) gives the following method for preparing aseptic gauze: Boil, for one-half hour, ordinary cheese-cloth in a solution of common washing soda, using a quarter pound to each five yards of material, adding sufficient water to cover it. Now rinse through several changes of water to remove the soda. This procedure removes all the oil from the fabric and makes it absorbent. After the gauze has been dried, cut it into strips of the desired width and length and sterilize, together with the proposed-containers, in the following manner:

At one end of a large breadpan place screw-top jars with caps, into the other end of the pan put the rolled gauze. Place the pan in the oven and bake until the gauze begins to scorch slightly. Now remove the pan and with sterilized forceps transfer the gauze to the jars; and close the latter tightly.

To make bichloride gauze, prepare and pack as just described. Now very carefully prepare a 1 : 1000 solution of mercury bichloride, employing only sterilized vessels. Pour this solution over the gauze in the jars until it is thoroughly saturated, and allow to stand for twenty-four hours. Then pour off the excess liquid and seal the jars air-tight.

CACTIN IN GRAVES'S DISEASE

In an article on Graves's disease, in "International Clinics" (Vol. III, 19th Series), Dr. Solomon Solis-Cohen describes an interesting case of this malady. It was characterized by recurrent headaches, variable in location, but accompanied by stabbing pain referred to the eyeball. The heart was irregular, at times tumultuous, in its action. Systolic pulse tension was low, 100 to 110 millimeters of mercury; the diastolic pressure about 80 millimeters. The sphymographic tracing was very irregular, showing a lack of sustained pressure either in the heart or vessels.

The treatment the author describes as follows: "The patient was put at rest, and cactus administered, in increasing doses, in the form of a solid extract termed by the manufacturer 'cactin.' The tracings which I exhibit show a gradual betterment of the heart's action, slight under rest, marked under drug influence, and now maintained for a month under activity. The pressure is now 125, systolic; 90, diastolic. The patient tells us that her pain has disappeared, and the date of her improvement coincides with the date of the marked change in the sphygmogram."

GLYCERIN AS AN ANTIPHLOGISTIC

L. Burges (*Practitioner*, Aug., 1911) reports several cases of inflammatory swelling in which both the inflammation and the pain were promptly allayed by the

free application of glycerin-soaked cotton covered with a water-proof dressing. The author was led to this use of glycerin by the objection of his patients to the rather considerable cost of the kaolin-glycerin pastes in vogue. He describes several cases of palmar abscess, of carbuncle, mastitis, etc., in which the application of glycerin-soaked dressings produced a prompt retrogression of the pain and the inflammation. The application is simple and certainly is worth trying.

THYROID EXTRACT IN RHEUMATOID ARTHRITIS

Horace Wilson describes, in *The British Medical Journal* for Dec. 3, 1910, two cases of rheumatoid arthritis in which the author was struck by the symptoms, some of which strongly suggested thyroid deficiency. The patients were put upon 5-grain doses of thyroid extract thrice daily, with suitable adjuvant treatment, and the results were remarkable, great progress being made under the treatment. The author thinks the group of cases likely to receive benefit are those in which changes are chiefly confined to the synovial membranes, without erosion of cartilage or eburnation of bone. He suggests the advisability of further observation on the action of thyroid gland in rheumatoid arthritis.

EXPERIENCES WITH SALVARSAN

Out of the innumerable articles upon "606" appearing in the journals, we note one in *The Lancet* that is of especial interest. McIntosh and Fildes detail a number of cases in which this remedy was applied, intramuscularly, subcutaneously, and intravenously. Judging by the number of relapses occurring after the first and second methods, and their absence after the third, the latter is the only proper method of administering this drug.

Their conclusions are: (1) Intravenous injections have fulfilled all that has been claimed for this treatment. [Previously they had said: "Even when applied by the intramuscular method, it has always appeared to us to be a substance more potent in the alleviation of symptoms than, perhaps, any other in medicine."] (2) Forms of application other than the intravenous are relatively unsuitable. Trible and Garrison, of the U. S. Navy, report 240 intravenous administrations of "606," with no resultant untoward symptoms. There were three recurrences, due to timid administration from unwillingness of the patients. In one of the three there was glandular involvement, and the inference is that there the parasites found refuge. A negative Wassermann test was obtained only in 10 percent of cases, the men being returned to duty too soon, the stay in hospital after the second dose averaging only two weeks. This record is published in *The U. S. Naval Medical Bulletin* for July. In the same issue, Dr. Sterne reports a return of symptoms after salvarsan, 0.4 Gram. The symptoms had cleared up, and the Noguchi test was negative. The dose, not repeated, was probably too small.

SILVA'S TREATMENT OF ASTHMA

De Silva's patient was a childless wife, aged 30, with a history of bronchitis, asthma, and hysteria. Seen in an asthmatic paroxysm, she was ordered iodoform, Gram 0.001 (gr. 1-67), daturine 0.0005 (gr. 1-330), and hysocyamine 0.0005 (gr. 1-330), every half hour; brucine 0.0005 (gr. 1-330), and kermes 0.001 (gr. 1-67), every hour. Relief came in four hours. Treatment continued, six granules of each medicament daily, replacing the hyoscyamine by monobromated camphor. By the third day the respiration was normal; but that evening she had a febrile attack, with chills and headache. In that locality such an attack could only be malarial. She was ordered quinine valerate and sulphate 0.003 (gr. 1-20) each every hour; frictions of quinine ointment to the spine, stopping the antiasthmatics while treating the malaria. To remedy the general condition she was given iron arsenate and monobromated camphor 0.009 (gr. 1-7) each during the day; brucine 0.001 (gr. 1-67) and quassin 0.002 (gr. 1-33) before meals; laxative saline when needed; also morning cold baths. The result sur-

passed expectation. Six months later there had been no attack of any sort.

THE HOME TREATMENT OF SIMPLE INJURIES

Dr. Edw. H. Ochsner insists, in *The Oklahoma Medical News-Journal* for January, upon the importance of teaching the layman how to take proper care of trivial injuries, in order to prevent septic infection—which occurs far more frequently than is usually supposed and is all too often responsible for the loss of life or limb or for contractures left after healing.

Dr. Ochsner does not want to seem to be an alarmist and be understood to say that every time a farmer or mechanic gets a small cut or abrasion he must hasten to the doctor and undergo elaborate treatment, for such a contention would be ridiculous. However, if every layman were taught simply how to care for the slighter injuries and if physicians and surgeons were more careful in treating the severer ones, the working and earning capacity of our people as a whole would be greatly enhanced, for we must not forget that the young, vigorous, productive portion of our population is the class that suffers most from these infections and their consequences.

The layman should know two things: first, how to take care of the simple injuries, and, second, that in all extensive superficial and in all penetrating wounds no time should be lost in consulting a thoroughly competent, conscientious and painstaking physician. The layman can take care of the minor injuries satisfactorily by gently squeezing or sucking the wound so as to draw outward, with some fresh blood, any particle of septic material that may have gained entrance. Besides, fresh blood is the best germicide we have, and if the vigorous, active leukocytes can get at the few bacteria that may have gained entrance, they will usually destroy them. If in addition to the above the layman will wash the member carefully with clean soap and water and will apply a freshly laundered cloth over the wound and keep the wound clean for a few days, these smaller wounds will scarcely ever cause any trouble.

Should the part become tender, a wet dressing of equal parts of alcohol and boiled water applied over night will usually relieve the trouble permanently. Witch-hazel and a considerable number of extensively advertised remedies have real virtue, but this is principally dependent upon the alcohol which they contain, and people have been exploited and overcharged for decades because we have not informed them that half alcohol and half water would be just as effective and only one-tenth as expensive. Besides, they would then have been disillusioned as to the supposed almost miraculous potency of these advertised remedies and would not have had undue confidence in them. Undue confidence is worse than complete lack of confidence.

ADMINISTRATION AND ACTION OF THIOSINAMIN

Renon (*Journal des Practiciens*, April 29, 1911) prefers a simple 5-percent solution of thiosinamin to the compounds with sodium salicylate or antipyrin, as being more active. He prepares the solution in the cold, and injects 1 to 2 Cc. (equal to 0.05 to 0.10 Gm. thiosinamin) under the skin of the abdomen. The injections are not painful, and in the course of 5000 administrations he has observed no untoward effects, although he admits that such may occur. Renon also gives the drug internally in cachets containing 0.02 Gram, mixed with milk-sugar.

As regards the action of the drug, the author considers it, on the whole, of secondary importance, capable of rendering certain help in therapeutics, but without giving the brilliant results claimed for it by some writers. Its solvent action on experimental cicatrices in animals is doubtful. In cerebromedullary sclerosing affections, as also in the course of spasmodic paraplegias it occasionally determines a diminution in the contractures and brings relief from pain in cases of tabes. Sometimes it arrests the progressive evolution of chronic rheumatism. In pulmonary emphysema and in pulmonary and pleural sclerosis it dimin-

ishes dyspnea to a noticeable extent. In cardiovascular affections its action is very variable. It is contraindicated in tuberculous patients.

INTRAVENOUS INJECTIONS OF SODIUM BICARBONATE IN DIABETES

Sicard and Salin (*Gaz. des Hop.* 1911, p. 1067) strongly recommend intravenous injections of sodium bicarbonate for the treatment of certain symptoms of diabetes, such as pruritus or various algias.

This treatment is in addition to the regulation dietetic management, but must not be given during or just before an attack of coma. The authors show that intravenous injections of concentrated solutions of the sodium salt are tolerated perfectly well, in fact they employ a 9- or 10-percent solution instead of the customary 1- to 3-percent strength. The sterilized liquid is injected in amounts of 100 to 250 cubic centimeters, and this may be repeated several times at intervals of a few days.

The possibility of giving such massive injections and their harmlessness are of evident interest when in the course of diabetic coma or during the precomatous symptoms it is necessary to act promptly. At the same time the arterial tension must be watched, and must not be increased by the intravenous injection of too large amounts of fluids.

At the meeting, June 24, of the Société de Biologie, Professor Lépine said that the superiority of intravenous injections of sodium bicarbonate, in diabetics in whom coma is imminent, over its oral administration depends, undoubtedly, upon a more perfect penetration of the sodium salt into the cells. It is possible that in diabetics the power of absorption of the digestive tract is greatly impaired. There are patients in whom the subcutaneous injection of iron gives good results, while it fails when taken into the stomach.

ON THE USE OF ACETANILID IN MALARIA

Dr. Robert Gray of Pichucalco, Chiapas, Mexico (*The Therapeutic Record*, July, 1911, p. 149) discusses the value of Ehrlich's work on the dye-stuffs and incidentally breaks a lance in favor of one of the dye-stuff derivatives, the much maligned acetanilid. He says that he breaks the pernicious malarial fevers in 97 cases out of 100, inside of four hours, with acetanilid —a substance that has been under the ban of studied medical journal defamation, and is unused by a large percentage of the American profession. Acetanilid is as innocent as epsom salt, and surpasses all other febrifuges in certainty and rapidity of action.

He continues: "My lamented friend, Dr. Ben H. Brodnax, had patients who swallowed from 100 to 180 grains of acetanilid (whether willfully or accidentally, he was not positive) who experienced no inconvenience after the toxic influence passed. I use it 3 1-2 grains with 1-67 grain strychnine arsenate every half hour, eight times, with male adults; and in dosage according to scientific propriety with women and children. The purple or blue tint under finger-nails, on gums and lips, and, sometimes, in splotches on other parts of the body are the same as they would be were all ingested at once, being the aniline tinge that becomes isolated from the substance and is thus deposited by the blood, the drug being a derivative of aniline, whose color can not be obliterated completely in the manufacturing process; but it is not a cyanosis, as has been erroneously supposed, cyanosis being due to faulty cardiac action of enfeebled patients, with no tinted medication.

"I use the drug only in the febrile stage, employing broken dosage of the quinine properly to avoid recurrences, podophyllin being my eliminant; and I do not average more than three relapses in a hundred treatments.

"Dr. U. S. Boone has had reports from a thousand sanitariums and hospitals, where uncounted thousands of patients had been treated, all successfully, save a very few cases, admittedly due to improper administration, with not one fatality, which justifies my boldness to tell what the substance has done for my practice, as well as increasing my pay 25 percent, simply on

the score of the thousands of dollars it is worth to the owners of these big rubber and cacao plantations to have their men free from fever for more than one to three days, when a man is attacked, now a rare eventuality."

A REPORT ON GELSEMIUM

We reprint the following from the Preliminary Report on Alkaloidal Assays, *Bulletin of the American Pharmaceutical Association*, April, 1911.

"Among the officially nonstandardized drugs which for many decades have been deemed of sufficient importance to merit a place in the Pharmacopeia is gelsemium. That the drug contained an alkaloid, named gelsemine by its discoverer, Kollock, has been known since 1855. This alkaloid was obtained in crystalline form by Maisch in 1869, and was further studied and found to exist in combination with gelseminic acid, an æsculin-like substance, by Wormley in 1870. After that time, gelsemine was considered to be the active principle of gelsemium, until Thompson, in 1887, announced the presence of a second alkaloid, which he named gelseminine.

"Some manufacturers have for years unofficially standardized gelsemium preparations for total alkaloid, and undoubtedly this standardization has been better than none in leading to the production of uniform preparations. In the year 1905, and for several succeeding years, Sayre has studied gelsemium with the object of verifying Thompson's work and obtaining not only gelsemine but gelseminine in pure enough condition for determining their formulæ. His article in the "Proceedings of the American Pharmaceutical Association" for 1908 showed the great difficulty of completely separating the alkaloids and, in fact, his chemical results cast doubt upon the existence of gelseminine, inasmuch as he was able, by treating the socalled gelseminine of Thompson with boiling toluene and alcohol, to separate from it some pure gelsemine. On the other hand, physiologic tests made by Reed at the request of Sayre, on the socalled gelseminine demonstrated that the latter was more than twenty times as active as gelsemine, and that a dose of pure gelsemine hydrochloride ten times as large as the minimum lethal dose of gelseminine hydrochloride on guinea-pigs was without appreciable effect.

"It follows, therefore, that the activity of gelsemium depends primarily upon the socalled 'gelseminine' of Thompson and Sayre, and only secondarily upon the more readily obtained gelsemine, which exists in much larger proportion (about 3 to 1 according to Thompson) in the drug. The real value of an assay for total alkaloids, i. e., the faithfulness with which it represents the real therapeutic activity, depends therefore upon the constancy of the ratio of gelsemine to gelseminine in the drug and its preparations. If this ratio is as nearly constant as that of strychnine to brucine in nux vomica, then the assay for total alkaloids is of unquestionable value, but on the other hand, if it varies considerably, the figure obtained by assay for total alkaloids may be very misleading, since gelseminine appears to be just about as much more active than gelsemine as strychnine is more active than brucine.

"As a means of studying the variability in the ratio of gelsemine to gelseminine in the drug and its preparations, Vanderkleed has studied the problem indirectly by comparing the assays obtained for total alkaloids with the lethal doses on guinea-pigs. His results as given on page 464 of the October, 1910, number of *The American Journal of Pharmacy* show that, whereas the minimum lethal dose of the fluid extract of 0.375 Cc. for a 250 Gm. guinea-pig corresponds quite uniformly with a total alkaloidal content of 0.4 percent, the relationship is quite different in the case of tinctures, where a relatively much greater toxicity (lower minimum lethal dose) in proportion to total alkaloidal content was noted. He concludes, therefore, that the chemical assay for total alkaloid is of little value unless checked up by the physiologic determination of lethal dose.

"It is recommended, therefore, that the chemical standardization of gelsemium be based upon the percentage of gelseminine and not on total alkaloids."

Frontal Insufficiency

A PERSON whose cerebral energy is exhausted reacts on the least annoyance by a burst of anger, by ill humor, by discouragement or by a flood of tears. He looks upon himself as the butt of witchcraft, as being himself, and those like him, the curse of the universe, the blasphemous thing against the supposed cause of all things that exist.

This person has ceased to control himself; his high frontal centers, those, namely, which have their seat most probably in the frontal cerebral lobes, have ceased to exercise their inhibitory action over the ideas, the instincts, the impulses, that is to say, all that which constitutes our ancestral memory, the heritage which we hold from our prehistoric forefathers. This memory is inscribed on the inferior cerebral centers, which centers act instinctively, automatically, in the same way as the reflexes do. These restraining centers (*centres frénateurs*) constitute, in part at least, our acquired memory (*mnême*—from the Greek, *mnême*, i. e., remembrance, memory), the cerebral treasure which we retain from our educators and from our personal experience. These centers think, reflect, and guard the notion of the proper value of ourselves, in order to make it of value at a desired occasion. Activity and exercise may hypertrophy these centers as they do for our muscles or the myocardium. Exercise repeated again and again therefore puts these restraining centers (*centres frénateurs*) in condition the better to hold the reins of emotional reactions, to wit, anger, desire, spite, disillusions, anxieties, depressions, and even pain itself.

In a word, there is an autodomination, an antagonism, between the divers cerebral centers. It is not, therefore, the spirit which dominates the flesh. The frontal lobes, the parts which integrate our self, which are the guardians of high moral sentiments and of our faculty to adapt ourselves to exterior circumstances and to the human acts of our fellow men, dominate (although not always) another part of our self, to wit, the inferior centers. There is a question here about an equilibrium, the conditions of which vary with the individuals. The truth is that only in normal man have the instincts to declare themselves but feebly. In them the restraining centers have, therefore, but little to do in maintaining the necessary equilibrium in the exigencies of life or in social conventionalities. Other people there are who are susceptible, and they have to make great efforts to inhibit the explosions of their ancestral memory (*mnême*). And if these people do not come up to the efforts needed they then get the reputation of being wrathful, impetuous, ruffianly (*goujats*).

Such are the consequences of frontal-lobe insufficiency. This malady is the source of much conflict among human beings. It may decide the fate of an individual and even that of nations. A diplomat whose cerebral reins are not in play may injure the nation he represents and is charged to safeguard.

Alcohol exercises a toxic action on the cerebral cells, and as a type of narcotic poisons, as Claude Bernard proved it to be, alcohol paralyzes them, although not

all of them simultaneously. Alcohol turns first of all against the cells of the superior centers, those, therefore, which according to the evolutionary theory have come last in the animal series. Moderate doses of the poison limit their effects there. Very large doses are necessary to paralyze the subordinate centers, those organs of reaction which are named anger, causeless weeping, gesticulations which rhyme with nothing, words which their authors believe to be spirited, but which really are hackneyed and silly because they were not uttered under the direction of the frontal lobes.

This dissociation of distinct centers by a narcotic is certainly remarkable enough, but there is more. Repeated observations made by the author upon others and upon himself go to show that at ordinary times we have the disposition of a sum of cerebral energy, unfortunately limited and quite fixed in an individual. One sudden and large expenditure, it would seem, ought to be compensated for by a realization of an adequate economy immediately after the expenditure. Yet even in days of intensest struggle and great expenditures all passes off as if the reserves of our cerebral forces had been diverted into the vast sieve of our neurons.

It may be that latent potential energies are liberated afterwards, the same as are liberated the enormous forces dormant in dynamite, by a spark. This might explain the very real necessity of repairing our forces, after a great expenditure of the same, by rest and a generous diet.

But in addition to these repairers we must mention the suppression of all useless losses of cerebral energies, these most precious of all our possessions. This is a thing not at all an easy matter here, and it remains a mere pious wish. We must consider the mighty corroders of our energy, worry, anxieties, and the thousand disagreements which good mother nature has so generously scattered in our path, evidently for the purpose of perfecting our human race by way of selection and survival of the fittest. Let us add further to these factors those sensations which provoke disagreeable sentiments and which thereby destroy cerebral energy. The point is important, because we can do much to remedy it. It is a fact that the association of caffeine and theobromine removes those sensations by facilitating the oxidation of the material in the catabolic changes without which no vital phenomena can be effected. The alkaloids named excite those centers which alcohol paralyses. This action may be indirectly due to a better blood irrigation of the frontal lobes. Be this as it may pharmacodynamically, coffee and its congeners tonify the centers which are characteristic of the moral and civilized person.

They facilitate our existence and communion with our fellowmen. They augment and direct into the right paths our limited cerebral energies. Their value, therefore, is great for those who struggle intensely or who become fatigued by excesses of various kinds or by ailments. They facilitate and shorten in effect the reconstitution of nervous energy, of which energy they regulate the employment.—Dr. Robert Tissot, in *La Dosimetrie*, May, 1911.

TRUE TRIORCHIDISM

Fully established cases of triorchidism are very rare. Generally the supposed extra testicle is merely a cyst of the spermatic cord. This, however, is not true of the case presented, November 3, 1910, to the Belgian Royal Academy of Medicine, by Dr. Leart. After making the diagnosis of cyst of the spermatic cord, Leart became convinced, by a microscopical examination, that the tumor presented an absolutely normal testicular structure.—*Paris Médical*, July 29, 1911.

EXAMINATION FOR ALBUMIN BY ARTIFICIAL LIGHT

It is well known how difficult and uncertain is the examination when the quantity of albumin in urine is very small. Plasencia describes, in the *Revista di Medicina* of Havana (January, 1911), a very simple procedure applicable in this case. He makes use of an ordinary test tube, which

differs only in its color, which is a violet-red. The urine is heated, when the cloudiness is observed far more readily than in the ordinary test tube. The coagulated albuminous particles appear clear, somewhat as under the ultramicroscope.—*Paris Médical*, July 29, 1911.

PERMANENT SOLUTION OF COCAINE

Zulzberger obtains a permanent solution of cocaine by combining 10 parts of the alkaloid with 90 parts of phenylacetate. Such a solution possesses eminent pain-quieting and antiseptic qualities. For dental purposes a solution of parts 10 of cocaine in 50 parts of phenylacetate is best. For the preparation of salves he recommends a mixture of cocaine, adrenalin, and stearic acid phenylester.—*Chem. Ztg.*, 1910. This seems to be a proprietary mixture. Anyhow, there are good local anesthetics whose composition we understand and with which are all familiar.

THE COBRA VENOM INTENSIFIED BY EGG-YOLK

Delezenne and Miss Ledert have established the fact that the cobra poison has the property of liberating from egg-yolk and at its expense, substances which are extremely poisonous to animals. In a mixture like this the toxicity can not be attributed to the original cobra venom, since the mixture of the latter with the egg-yolk requires only a 100th or 10,000th, or even a 20,000th part of the cobra venom to become fatal.—*Paris Médical.*

THE COMBINATION OF DIGITALIS WITH ERGOTIN

Hecht (Germany) treated two cases of hemoptysis from congestion of the lungs in connection with gastrointestinal catarrh with a combination of digitalis with ergotin, after digitalis alone had no effect. The result of the combination was not only a cessation of the hemorrhage, but also a veritable flood of urine, which latter resulted in the disappearance of the dropsy of the legs in a few days. The author believes, contrary to other observers, that ergotin in combination with digitalis not only reduces the blood pressure, but even dilates the blood-vessels. He therefore also recommends the administration of this combination in the cases where the usual diuretics, in combination with digitalis, have no effect.

He prescribes the following pills in recurrent disturbance of the circulation: Standardized digitalis leaves from 1.0 to 2.5; ergotin, 2.5; squill, 3.0; calomel, 0.5. Make 50 pills, of which 2 pills are given three times a day. With these pills Hecht has had good results in a series of cases. The good effect of the ergotin can be explained by assuming that it overcomes the constringent effect of the digitalis on the blood-vessels, especially dilating the smallest renal vessels.—*Therap. d. Gegenwart.*

THE MAMMOTH

The mammoth was regarded as the progenitor of the present-day elephant, and the theory of descent was supposed to be evidenced by it. This evidence has been rendered questionable by Prof. W. Salewsky of St. Petersburg, who delivered a discourse before the Sixth International Congress of Zoologists, held at Bern, the lecturer discussing the results of the scientific examination of the completely preserved mammoth which Dr. Otto Herz discovered in Siberia in the year 1901.

Our knowledge of the mammoth was essentially enlarged by the examinations which several Russian savants have made of this specimen. Thus we now know to a certainty that that creature was considerably larger than the elephants of the present time. It has been found that it had only four toes, which shows that the mammoth belonged to a branch of the elephant tribe which became extinct when this one died. The lecturer exhibited pieces of stomach musculature in which even blood-vessels and nerves could be traced out, desiccated brain and blood, and pieces of skin with bristles, wool, and stiff hairs. The dark-gray skin in the dried state is two and one-half times as thick as the skin of the present elephant and looks

as though it were tanned. The blood, that is perhaps ten thousand years old, gives the socalled biologic reaction with the blood of the present Indian elephant, thus proving the mammoth to have been a blood-relation.

Between the teeth, on the tongue, and in the stomach of the dead mammoth examined were found abundant remains of food, which consisted almost exclusively of grasses even now growing in the places where it was found, showing that the animal fed upon such where it died. With the grasses, some of which could be well determined, there was an admixture of seeds, as well as some single specimens of higher flowering plants, and also of the meadow thyme.

It must have been the cruel hunting down of these giant animals by men mainly that crowded them out of middle Europe, soon after the glacial period, away to Russia, and lastly to northern Siberia, and thus contributed to their final extermination. While formerly scientists contended against the assumption that man was the contemporary and hunter of the mammoth, no doubt is now allowed but that this was really the case. The finds that are made now go to show that the mammoth made a much-desired game for the people of older Europe, whose degree of culture can be demonstrated, as well as for those of the Magdalenian period. It was game, a single one of which, when killed, furnished food of excellent quality for entire hordes for days and weeks. We therefore have to do here with an extinct northern species of the elephant, which proves nothing for the Darwinian hypothesis, a variety that still existed within historic times of man.

Strikingly powerful in that animal was its strongly developed head, which sat on a comparatively short trunk, and which had very small ears, a mighty proboscis and powerful tusks (of about 100 pounds), which turned outwardly and then made a graceful turn inwardly. The hind quarters terminated in a short, pointed tail bearing a bunch of strong bristles. The entire animal possessed a thick, dark-brown, hairy skin, which became lighter in color inwardly until it was almost blond. Beneath the longer bristles hair of 20 centimeters' length there was a thick fur of woolly hair from 5 to 10 centimeters long. From the chin back to the hind legs, covering neck and belly, there was a waving mane, about 50 centimeters in length, like that of the yak, and which must have been an excellent protection against the intense cold.—E. Dennert, in *Glauben und Wissen*, 1905, p. 104.

LIVERPOOL VIRUS AS A RAT EXTERMINATOR

Liverpool virus is a rat exterminator, the action of which, according to Steffenhagen, depends on bacteria belonging to the Gaertner group. It cannot be distinguished from the bacillus enteritidis Gaertner, either through culture, agglutination or the formation of a complement, and provokes in rats a mortal disease which starts in the bowels. Pure cultures of the bacteria can be grown from the dead animals. It does not seem to affect injuriously domestic animals. In using this preparation, special caution must be exercised, inasmuch as in London at least twelve cases of sickness have occurred which have been traced to an infection with this Liverpool virus.—"Arb. a. d. Kaiserl. Gesundheitsamte," in *Pharm. Zentralh.*, 1911, p. 909.

AMIDOAZOTALUOL, THE ACTIVE INGREDIENT OF THE SCARLET-RED OINTMENT

This ingredient is preferable to scarlet-red, in the ointment made with that dye, because it does not stain so much. Amidoazotulol is a reddish-brown powder soluble in oil, alcohol, and ether. Michaelis of Kassel used it as a dusting powder for sores in the following prescription: Amidoazolotuol, 10.0; zinc perhydrol, 20.0; bismuth subnitrate, 70.0. Apply with a powder-blower over the entire sore and cover with a dry sterilized dressing. The dressing should not remain on longer than three days.—*Med. Klinik*, 1911, No. 4, in *Pharm. Zentralh.*, 1911, p. 909.

Nonsurgical Gallstone Treatment

DOCTOR EVANS of Freeport, N. Y., writes (Sept., p. 994) of his success with liquid petrolatum and atropine in gallstones, and concludes his article as follows: When does gall-duct obstruction become operable? Answer: Whenever a surgeon is at hand. This is not intended as a reflection upon the surgeon, admitting surgery is often best."

Now, the Doctor's query and his own answer to it leads one to believe that in his opinion operative interference is seldom necessary, when, as a matter of fact, very few of the cases treated medically ultimately escape the surgeon if they are to become symptom-free; and one of several things must happen to bring about this happy termination, viz.: First the calculi must pass out and no new ones be formed. Second, they must disintegrate or dissolve and the resulting residue pass out into the intestine. Third, they must become so large by accretion that they no longer become caught in the duct, in their attempted expulsion by the gall-bladder. Fourth, the infection causing their formation must subside or other stones may form.

Taking up the first likely termination, that of passage of the calculi through the duct, we know this is possible, for we have many recorded instances of even large formations found in the stools. But this is not probable, as evidenced by recurring attacks afterward, for usually others remain.

Now as to the possibility of relaxing the ducts sufficiently to allow all stones to pass, I can state only my own experience.

I have repeatedly tried different relaxants, such as chloroform, ether, hyoscyamine, atropine, nitroglycerin, and morphine, without accomplishing such a happy termination, although it may be possible. Recently I had a case of biliary colic in a young woman of 24 years, who had been treated by many physicians and in many ways, without success, for four years. I tried some of the old standbys internally, including a special method devised by Dr. Chas. S. Webb of Bowling Green, Virginia (paper read before the Medical Society of Virginia, Oct. 9, 1906), by which he claimed to have achieved several startling successes in removing great numbers of gallstones.

Dr. Webb's method consists in administering large doses of chloroform and ether in 8 ounces of olive oil, taken in one dose. He depends upon gravity to aid the lubrication of the duct by elevating the hips and making the patient lie on the right side for one hour and then changing to the left side for another hour, this to be followed by a good dose of castor oil. He elutriates and sifts the stools for stones.

However, this method also failed to alleviate the suffering in the case of the young lady mentioned. She finally got an attack that failed to let up even with grain-doses of H-M-C, they recurring after the effects of the morphine subsided. I operated the third day and found a distended gall-bladder containing twelve small stones of only the size of large shot. It certainly might be expected that these smooth, little calculi should have passed under the relaxing influence of the chloro-

form and ether and the lubricating action of olive oil—but they didn't. The patient made a quick recovery, in four weeks the wound had completely healed, and she is entirely symptom-free since. It may be mentioned that I injected sterile olive oil through the drainage tube (until I removed it on the eighth day), to get what local influence the oil might have upon the mucous membrane lining the gall-bladder and duct.

Next as to the second possibility, that of gradually dissolving the stones *in situ*. Many remedies, including sodium succinate, sodium salicylate, piperazin, have been lauded from time to time, but as yet no proof has been shown that such a thing is possible. Perhaps someone will be able to demonstrate, by means of skiagraphs (before and after using a certain remedy), that such a thing is possible, but thus far nothing of the kind has been reported.

In the test tube it is possible to disintegrate the calculi by dissolving out the colloid material, holding the insoluble salts and cholesterin, by means of a weak solution of sodium hypochlorite (antiformin), as reported by Dr. Robt. F. Morris of New York, in the abstract discussion on the papers of Drs. Stanton and Davis in *The Journal of the American Medical Association*, Aug. 5, 1911. This suggestion might prove of value, in practice, in those cases of impacted stones that are overlooked in the cystic or common duct at the time of operation. Possibly they may be disintegrated through the drainage tube, rendering possible their passage through the intestine as sand. Antiformin in capsules might even be tried by mouth; hoping it may find its way into the gall-bladder, by capillary attraction.

The third way in which a patient might become symptom-free or at least free from true colics is that the stones become so large that their expulsion becomes almost impossible through the duct, hence colics are not likely to ensue. This is probably the way some patients become symptom-free, and I have treated quite a few patients, who were relieved by internal treatment, who come under this head, unless they were of those severe cases of inspissated mucous obstruction, where the plugs either passed these or they became liquefied in time and no longer interfered with drainage.

The fourth class of cases, those due to infection, are undoubtedly influenced by internal treatment; but should the process become suppurative, the surgeon again has his inning, unless the internist delays the game too long, in which event the man with the scythe wins the pennant.

In conclusion I will say, Do not temporize too long in these cases, that rightfully belong to the surgeon; Give your patient the benefit of such internal treatment and experimentation; for by this method some ideal treatment may yet be discovered, but after a reasonable time operate, before too much damage to the mucous membrane has ensued.

Also bear in mind the possibility of making morphine habitués of sufferers by too frequent use of the hypodermic needle to relieve the colics. Postoperatives should also be kept under observation and treated, to prevent recurrence of the infection primarily the cause of stone formation.

Lucius H. Zeuch.

Chicago, Ill.

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[The surgeon whose duties lie in applying mechanical remedies to remove mechanical conditions looks on the stone as a point for therapeutic attack. We know, however, that a very large majority of those carrying gallstones never so much as suspect it, the stone being found at autopsies in 10 percent of all persons thus examined. It is not the stone that does harm, but the infective inflammation of the biliary passages that renders them intolerant of the stone is what we should attack.

Dr. Zeuch's error is manifest by his ranking sodium succinate as a remedy to dissolve the stone. This is neither essential nor certainly possible. The succinate dissipates the symptoms and cures the inflammation, leaving the stone much as a bullet is when encysted in the tissues—undesirable, but quiescent and harmless for the time. Years ago I presented this scheme: Treat the paroxysm with glonoin,

to relax quickly the spasm of the circular muscular fibers of the gall-ducts and release the stone; adding hyoscyamine to increase and prolong the action; and strychnine to energize the longitudinal fibers and hurry the stone along the ducts. Give in doses of gr. 1-250 each, every ten minutes till relief of pain or dryness of the mouth, and if the relief is insufficient add a mere whiff of chloroform.

Recurrence with unabated violence I take to be an indication of the presence of a mechanical condition, like impaction, demanding mechanical relief, and I call in the surgeon. These cases are rare. In minor cases and following the above combination, of late I use dioscorein, 1-6 grain in a little very hot water every ten minutes, and am more disposed to rely on it with every demonstration of its efficacy.

The attack over, the patient is placed on sodium succinate, 5 grains four times a day, and directed to take this for six to twelve months. During this time the paroxysms become less frequent and less severe until they cease. The remedy is continued as long as there is a trace of bile to be found in the urine. For a good many years I have been making myself unpopular with some surgeons, by taking cases they had condemned to operations and curing them by these means. But I am not blaming them any more than I would blame the shoemaker that he could not cut and make a suit of clothes. Each sees what he sees, knows what he knows.—Ed.]

DEMENTIA GROUCHITICA

Fortunately the disease named in the title is of very rare occurrence. It never attacks you and me; that it does exist, however, there can be no doubt. Sometimes it attacks members of the medical profession; therefore my remarks will deal with its effects on the individual doctor and upon the profession as a whole.

With respect to semeiology, *dementia grouchitica* is characterized by three sets of symptoms, viz.:

1. *Envy.* The victim is chagrined at what he believes to be the good fortune of his competitor, who perhaps is no more fortunate than he, but smilingly goes on and does things, and so receives favorable comment.

2. *Jealousy.* The person afflicted becomes suspicious that his competitor is taking unfair means, trampling upon his rights, and pirating his business from him. He knows (?) that his competitor is dishonest, incompetent and unworthy. He resolves that he will have nothing more to do with him. Never speaks of him to others, except deridingly.

3. *Hatred.* The victim of *dementia grouchitica* not only detests his neighbor physician, but he concludes that something is wrong with himself; thinks he has been too ethical, too honest; that only the blatant, incompetent, dishonest quack succeeds; that the organized profession is a frame-up to injure the honest doctor; that the independent is equally as inimical to the success of the medical profession; he believes that he should "throw ethics to the dogs." Thus he goes grouchingly on, until he is regarded by the profession and the laity with much the same derision as he himself had looked upon them. He now is in the advanced stage. He forgets that, while other professions may lose their utility in the progress of things, the medical profession is the one indispensable thing. It has come to stay. The religious devotee may forget the priest and the altar; the lover may forget his impassioned vows; the mother may forget her babe after it is born; but "man smitten with pain will not forget to seek relief."

Treatment: There is no medicine known to medical science that will have the slightest influence upon this disease—even the "cup that cheers" will make the grouch more grouchy. Yet this disease is curable; but the remedy must be applied by the victim himself. He must turn himself around and go the other way. He should remember that the medical profession is composed of the best flesh and blood of the land, in this the best country on earth, where so many things are designed and provided for our happiness and comfort; inhabited in most part by very lovely people. As the world grows older,

there is more in it for the comfort and happiness of man. Modern comforts are abundant—people act and look more lovely—each year brings to us more to be enjoyed than its predecessor. He should seek the society of his professional brethren—none better can be found—and the grouch will disappear; discouragements will become fewer, and the world will look brighter and better.

"'Tis the coward who quits to misfortune;
'Tis the knave who changes each day;
'Tis the fool who wins half the battle
And throws all his chances away.
There's little in life but labor
And tomorrow we may find it a dream.
Success is the bride of endeavor
And luck is a meteor's gleam.
The time to succeed is when others,
Discouraged, show traces of tire;
The battle is fought on the home-stretch.
And won 'twixt the flag and the wire."

T. A. Stevens.

Caney, Kan.

CONDITIONS OF TONGUE AND BUCCAL CAVITY: WHAT MAY BE LEARNED FROM THEM

Glossitis is not frequently encountered in children, but occasionally we find excoriations and patches covered with macerated epithelium which persist without any visible cause. In measles, variola, erysipelas, herpes, pemphigus, and eczema, eruptions may appear on the tongue; later the bullæ or vesicles may ulcerate.

A tongue with a yellow coating on its base indicates hepatic torpidity, and is called by many physicians the "podophyllin tongue."

A dry, glazed tongue usually indicates gastric or enteric disease, although it is also noted in phthisis and wasting disorders. Gastritis, enteritis, peritonitis, and intestinal obstruction present this peculiar dry, glazed tongue.

The "strawberry tongue" is an evidence of scarlatinal infection or of ichthyosis linguæ. (Differentiation is easy, of course.)

A smooth, moist, red tongue generally exists in hyperacidity.

A fissured tongue is seen in diabetes, syphilis, chronic dysentery (with peculiar glazing), and in marked cases of erysipelas.

A red, swollen tongue will be noted in aneurism of the aorta, cretinism, mitral disease, variola, and pemphigus. Glossitis, carcinoma of tongue, and ingestion of irritant poisons will also cause this appearance. Some cancerous patients present a "large red tongue."

A small tongue is seen in bulbar paralysis (the patient may be unable to protrude the tongue or only one side of it), the typhic state, acute peritonitis (red and glazed), enteric fever, chronic gastritis.

A large, pale tongue, showing indentations of teeth, may be seen in anemia, gastric atony, neurasthenia, mucous disease (it is slimy), cancer and ulcer of stomach, relapsing fever, and chronic gastritis in anemic, neurasthenic patients.

A dry, furred tongue is present in ague, dyspepsia, continued fevers, the exanthemata, erysipelas, jaundice, pyemia, pneumonia, typhus, acute tuberculosis, endocarditis, lead poisoning, remittent fever.

White fur is more or less marked in alcoholism, apoplexy, hepatic disease (catarrh, gastric, biliary or enteric), colitis, constipation, erysipelas, enteric fever (down the center, and early), measles, meningitis, rheumatism, acute pneumonia, lithemia, quinsy, gout, phthisis, relapsing fever, gastric irritation, migraine.

A brown fur is seen in severe erysipelas, third week of typhoid fever, gout, gastritis, remittent fever, jaundice, septicemia, scurvy, strangulated hernia, typhus, typhoid condition, acute tuberculosis. Any dirty tongue may assume a brown tint from coffee, cocoa, licorice, etc.

Ulcers on the tongue may mean aphthæ, chancre, gastritis, epithelioma or a rough tooth; secondary and tertiary syphilis cause patches and ulcers. Ulcers on the under side of the tongue suggest sprue.

Nodules point to actinomycosis.

A bitten tongue leads us to suspect epilepsy or hysteroepilepsy (not hysteria); a fall may cause the tongue to be severely bitten.

The tongue trembles in alcoholism, bromism, chorea, bulbar paralysis, delirium tremens, paralysis (general), disseminated sclerosis, the typhoid condition, and often just before death.

[The foregoing is reproduced from that excellent little book, by Dr. G. H. Candler, on "Everyday Diseases of Children." The portion here quoted is of unusual value to the busy family doctor, deserving to be closely scrutinized and the facts stored away in a memory's niche for future—and frequent—reference; for here Dr. Candler has collated and grouped concisely and succinctly all the salient facts connected with the more frequent lesions observed in the buccal cavity as valuable diagnostic factors. There is danger that among the younger generation of the guild these and similar diagnostic helps in the treatment of disease are being slighted and forgotten—to the detriment of the patient and the prejudice of the profession.—Ed.]

A SIMPLE SUSPENSION APPARATUS

I read Dr. Morrison's article on "Cervical Luxations" with interest, and as he asked the question, "What can I do on an Indian reservation with such a case?" I am going to answer briefly what I believe will not only be a great help in his case, but will help every other doctor, if he will but use it.

You, Mr. Editor, and every other person who does work that requires much stooping can also come in on this little trick. I never told it before, because it is just a little matter of routine I use in many cases, and on myself.

It is just a simple suspension apparatus made like Sayre's, only the arm-pieces are left off.

As the editor has pointed out, there is lack, in this case, of lime, magnesium, sulphur, phosphorus, and iron in the blood, which makes the ligaments very lax. (Dr. Robinson's idea of too much child-bearing for the vital powers to fulfil.)

The best way to help ligaments is to feed them and give them work. Suspend her by the head daily, and while the neck is on tension, work the muscles with the hands. Have her get an apparatus to use at home and trice herself up several times daily. At first pull just enough to lift the pressure off the head, then gradually increase the pull till the body swings clear of the floor. It will not be many weeks till she will get real pleasure out of this, and ere long she will not fear the luxation.

This apparatus should be in every home as there is nothing except sleep that will so rest the tired nerves as well as this practice. I have treated many cases of spinal curvature in this way also, and good results always follow.

For myself, after a backachy job or long bending over a desk, writing, or nervousness, a little swing brings back new force. Just tie a loop in the rope and draw up till on tiptoe and then throw the knot over the door-knob and swing as if in an ordinary swing.

Even old cases of hunchback can be much improved. I took the daughter of Mrs. E., of San Diego, 14 years of age, so badly crippled that the ears were on a level with the shoulders and in seven months' daily suspension and percussion up and down the spine the curvature was reduced enough to make her one and one-half inches taller and in such good form that by proper clothing she looked very well indeed. She became so strong in those muscles that she not only bore her own weight hung by the head, but my own in addition. I would draw her up five feet, clear of the floor, give the rope to her mother, take hold of her feet and gradually add my own weight.

F. G. De Stone.

San Francisco, Cal.

[We sent a copy of Dr. De Stone's interesting article to Dr. Morrison and asked him to comment, which he did, as follows:

"Whenever the intervertebral cartilages are compressed, the stretching treatment is of the greatest value, and nothing else can take its place. It restores the resilience which has been lost. If the ligaments are abnormally contracted, they also are restored to their normal condition. This, I think, is all it does. It cannot contract relaxed ligaments either primarily or secondarily. I used the suspension on myself twice a day, as a control, when I was testing it. My patients were greatly benefited, but I got no effect of any kind in my own case. I think the benefit in Dr. De Stone's case

is entirely attributable to the relief of compression of the anterior aspects of the dorsal discs, and not to any influence on the ligaments.

"Dr. De Stone increased the height of one of his patients one and one-half inches. This is hardly compatible with a contracting effect on the ligaments. His actual experience with the treatment is evidently the same as my own. The effect of stretching is always stretching, never the reverse. But I am afraid Dr. De Stone is a little inclined to generalize too widely on the basis of insufficient data.

"My goiter patient is very tall and slim. There is no sign of compression or contraction anywhere along the spine, rather the reverse in the cervical region. I never tried the stretching on her, because I did not wish to make a bad matter worse. I first 'set her neck' at the time that I was stretching several cases of curvature of different kinds. I do not see how any rational man could see her case and compare it with those, and imagine that the same treatment would be desirable for all; but if Dr. De Stone, or anyone else, can produce an actual case of stretching, producing contraction in a ligament, I will modify my views. At present I am decidedly 'from Missouri' on that point."

The suspension treatment appeals to us as being of undoubted value in many cases. We should be glad to hear from those who have had experience with it.—Ed.]

DAY AND NIGHT

DAY

The Day is ours. We love the busy restless day;
It holds our meed of joy, our hours of work and play;
And yet the day is full of noise and garish light,
Indexing all too clearly to our human sight
The walls of difference men build about their lives,
The bitter want and cruel greed that ever drives
And follows men along the pathway of the lust
For gain—where souls are bartered for a bit of dust.
The peasant's hut, when in the light of day 'tis seen
Beside the palace of the king, looks poor and mean.
The day is full of toil and evening shadows close
About a weary world that's hungry for repose.
The day is doomed—no dawn, however bright
But treads the path of yesterday unto the night.

NIGHT

The Night is God's. He spreads the darkness, calm and blest,
About his weary children like a robe of rest;
The garb of wealth, the cloak of rags is laid aside,
And in the quiet night there is no voice of pride.
The darkness folds with equal love the humble home
And the proud palace, with its lofty tow'r and dome.
The night is full of peace, and rest, and folded wings,
And the soft breathings of a thousand sleeping things;
And o'er the slumbering world a host of kindly eyes
Are looking down through countless windows in the skies;
The darkness cradles faith, and through its hours of rest,
We feel tomorrow pulsing in the midnight's breast.
For night is pregnant with the promise of the dawn,
And darkest hours break ever into glorious morn.

—Francis McKinnon Morton.

San Antonio, Tex.

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[Written by a doctor's wife.—Ed.]

DRINKING WATER WITH MEALS. CALCIUM FOR WARTS

After having read the article, entitled "Drinking Water with Meals," in the October issue (p. 1027), I thought it would not be amiss to contribute my observation in regard to this question in two recent cases, which strikingly seem to contradict the proving there represented.

One is the case of a man past 54 years of age, who habitually drinks large quantities of water, taking invariably two or three glasses at dinner and at least one at supper, besides his coffee at breakfast, of course, and tea at supper. He is of spare build, a good eater and a fair consumer of meat, is of nervous temperament, lively, but does not exercise much. He has suffered for years all kinds of ailments: headache, chronic constipation (not of late), throat and nose troubles, nervous disorders, febrile diseases, etc.

Recently he complained of too frequent calls for urination, being compelled to rise several times at night, but felt nothing special except a sensation of dizziness and lassitude. I advised a uranalysis and found the following:

Amount in twenty-four hours: 2375 Grams, of straw-color, clear, 14° acidity, specific gravity 1010, urea 16.625 Grams, no albumin, no glucose (of course), no indican. He went to Kansas City to consult a "specialist," who also made a uranalysis (?) of a sample passed at the time, and declared his urine normal (I have read the letter), and his condition a nervous affection.

The other case is that of a man of 71 years, of average build, who formerly led a pretty active life, but for some years does not do heavy work, though never idle. He has not been sick since 1876 (pneumonia), hardly ever had headache, never was constipated for more than a few days at a time, and this very seldom. He is a light eater, eats but twice a day and very little meat. For many years he does not drink any water at all, except during the hot summer months occasionally a glass once or twice a day, and never with meals. At dinner he regularly takes half a glass of cider or wine, which he consumes by soaking bread in it after the meal is finished, and in place of these, at the proper season (as now), a glass of freshly expressed apple juice (sweet cider) when occasion offers, in the same manner. He drinks a cup of coffee at breakfast, sometimes another at nine, and usually one at 2 o'clock; eats an apple or two before going to bed. Once or twice a week he drinks a glass or two of buttermilk in the late afternoon.

A few days ago he observed a noticeable increase in the amount of his urine, which was almost colorless, but has nothing whatever to complain of, except that for some time he suffers with a weak back, which makes it difficult and even painful to rise from a sitting or stooping position, this remaining after a severe cold and an attack of lumbago at a sudden change of weather and temperature a few weeks ago. He had his urine examined, and the following was the finding from some passed three hours after dinner! Clear, almost colorless, of 10° acidity, specific gravity 1006, urea 0.006, no albumin, no indican. Two days later another examination showed: amount in twenty-four hours 1400 Grams, clear, yellow, neutral reaction, specific gravity 1.016, urea 11.2 Grams, total solids 52.36 Grams, no albumin, no indican—a perfectly normal urine.

This man has taken no medicine whatever, neither now nor for years past.

Although I do not consider these observations of any practical value whatever, I could not abstain from reporting them, because they seem so diametrically in opposition to the claims and provings of Dr. Niles as reported in the above-cited article.

Concerning the action of the calcium salts (page 1077), I will report, that a lady came to me, April 2, whose hands up to the wrists were literally covered with warts of all sizes, some as large as a nickel coin and one-eighth inch thick; and several of these large ones just over the joints of the fingers and knuckles, which of course caused her a great deal of trouble.

I gave her calcium lactophosphate, 1-2 grain to be taken three times daily, and a saturated solution of epsom salt for local use. The latter was continued until August 1, when I gave her a little dermal solvent and a glass rod, showing her how to apply it to the large horny warts. Besides this, I gave her 1-2 ounce specific medicine of thuja, of which she was ordered to take 2 drops in water twice a day, continuing the calcium salt also. By carelessness in the application of the dermal solvent she managed to get a few very sore places. Two weeks ago she presented herself again with not a single wart, neither large nor small, anywhere; but a few slight scars where the solvent had produced the sores.

Brother Cosmas, O. S. B.

Conception, Mo.

DRINKING AT MEALS

I notice that C. C. Fowler and P. B. Hawk, professors of physiological chemistry at the University of Illinois, after repeated tests have come out strongly in favor of water drinking at meals, claiming that at least a quart of water should be added to the customary amount taken with meals if you wish to derive the maximum efficiency from the food.

From time immemorial the opinion of the medical profession has been strongly antagonistic to the taking of water with meals. The argument has been that water taken in this way dilutes the digestive juices and therefore lowers the efficiency of the latter. But the experiments made by the two physicians named seem to indicate that consuming large quantities of water with meals is most beneficial, from the standpoint of health.

I have always held to the belief that before the food can be assimilated it must, in some way, be liquefied, and that the addition of water to the meal facilitates the process and thus has a tendency to prevent fermentation, that prolific cause of auto-intoxication, and which, in turn, results in acid-indigestion, the *bête noir* of the profession—the *fons et origo* of such a large proportion of disorders we have to contend with. I have as yet never advised a patient to bar water from his meals, although he is cautioned not to wash down the food with the fluids.

JAMES STANTON.

Rexford, Kan.

FOREIGN BODY IN THE EAR

Among the many "short stops" appearing in CLINICAL MEDICINE from time to time, I offer the following additional one.

As is well known, every now and then someone is unfortunate enough to have some objectionable foreign body penetrate the ear, which can ordinarily be removed with forceps or a hook; but if the offending object is an insect, its removal is many times a difficult matter. The writer on one occasion, when driving in the country, had a rose-bug enter his ear, and instead of working its way out, it went in farther and farther, and the pain was most excruciating. He stopped at a farm house and called for sweet oil or castor oil, but none was at hand. He then asked someone to melt some lard in a spoon and pour it into his ear, which being done, the rose-bug backed out "instanter," to the great relief of

MEDICUS.

——, Connecticut.

[Even flooding the ear with warm water will usually float out his offending bug-ship.—ED.]

"WATER WITH MEALS." COWHAGE

When I became the resident physician of an orphans' home I found that the children were drinking freely of milk, water, and coffee with meals. There was little attempt at mastication, the food being washed down. Indigestion was common and decayed teeth were the rule. For several years we have enforced a rule prohibiting coffee and serving milk or water *ad libitum* at the close of meals. The results have been good. For the year ending August 31, 1911, about one-fourth of the long-resident children had no dental caries, and one-fourth had but one cavity. Indigestion, except during the green-fruit season, is not common.

If your editorial leads people to drink freely with meals, at the expense of careful mastication, you will have done more harm than good.

Cowhage.—The night of August 31 a man rushed into my room and begged relief from a most intolerable itching and burning of the skin. I found him covered with a red eruption, characterized by slightly elevated spots. His suffering was intense, necessitating hyoscine-morphine and cactin. This combination of drugs, together with free washing with carbolized water, gave relief. I made a provisional diagnosis of urticaria. Later a strange-looking powder was found in the man's bed and on some clothing. This I was able to identify as cowhage. An enemy of my patient had secured the drug from Cleveland, Ohio, and with malice aforethought (so he confessed) had placed the drug in the bed and on the clothing. My diagnosis was erroneous, but I learned a new use for cowhage.

Galactenzyme.—A man ninety years old to whom a patient gave some tablets of galactenzyme declares it is a Godsend. Through its use he has been relieved of intestinal fermentation, which was making life not worth living.

———.

——, Ohio.

[We presented Dr. Niles' and Dr. Hawk's experiments concerning drinking water with meals simply for what they were worth—without endorsement. However, the evidence which the latter and his co-workers submit is exceedingly strong. Apparently the free use of water at meal times activates gastric digestion, diminishes intestinal pu-

trefaction and increases the functional activity of the pancreas. (See the Therapeutic Notes department in this issue.)

Of course Dr. Hawk does not teach the indiscriminate drinking of unlimited quantities of water at meal time. A reference to the editorial will show that "moderate" and "copious" are the terms used, and the limit placed between 500 and 1000 Cc.—a quart as the maximum. Careful mastication should be insisted upon, no matter how much water is taken. Undoubtedly the Doctor's suggestion, that the fluid should be taken *immediately after* eating, is a good one. This should prevent the "washing down" of food.

Many a "mean trick" has been played with cowhage, though (fortunately for some of us, perhaps) it is little known on this side of the "big water."

Galactenzyme is making many friends—and it should. It's a fine thing.

We apologize to the author of this paper for publishing it unsigned. It was copied, and through an oversight the name was not appended. If the doctor will write us we will print the authorship next month.—Ed.]

PNEUMONIA: PROFESSOR ELLINGWOOD DISSENTS

I have just read with interest your remarks, on page 1211 of your November issue, on my comment on Dr. Thompson's communication on "The Treatment of Pneumonia." I will restate here my comment on the action of the dosimetric trinity and defervescent compounds, in full:

"There is no doubt that the treatment had all to do with the abortion of the condition, but there are hundreds of our readers who will at once say that, while the above treatment is superior to the usual course adopted, it lacks the strict elements of a rational, *exactly adapted*, course, and that much could have been omitted. There is no need whatever for a physic in these cases, *if there be no constipation*, a laxative may be useful, but not always necessary. They would advise small doses of aconite and veratrum, or either alone, as exactly indicated. Digitalis was certainly not called for on the first day, and *it may retard* the influence of veratrum when that remedy is demanded, *which is shown*, on the second day, by the fact that the pulse-rate was the same. It is usually best to continue the aconite, and wait until the temperature is at least at 100 degrees, before giving strychnine. The patient made most rapid improvement, but in some cases this course would have been improved even by the above suggestions. No two cases can be treated exactly alike."

I say, and I insist, that the course adopted *lacks the strict elements of a rational, exactly adapted course.* There is no invariable general condition in pneumonia, independent of other conditions, except the primary congestion. The exact conditions in each case must be treated with the exact remedies. *Strict individualization of the case* must be made. Your correspondent quotes me as saying, "there is no need whatever for a physic in these cases." I say, as above, "there is no need whatever for a physic in these cases, *if there be no constipation.*" "A laxative may be useful, but it is not always necessary." You say, you "take exceptions to my advice anent the clean-out"—as if I had advocated an unclean intestinal tract. In all my writings I insist positively upon cleanliness of the intestinal tract, the same as cleanliness of the skin, but I fail to see, after retained fecal matter is removed from the intestinal tract and the colon has been flushed antiseptically, how persistence in the use of irritating cathartics is cleansing the tract. I believe in using intestinal antiseptics, and there are none better than the sulphocarbolates. I advocate high and thorough flushing of the colon, but insist on using physics very sparingly, because they not only increase the quantity of fecal matter in the intestine and which must be removed, but they very often stimulate the excretory glands unduly and unnecessarily, and occasionally pathologically.

I have studied your compounds referred to, and I am confident that better results could be obtained from the individual remedies of the triad, in each case, if they were always absolutely and accurately adapted, individually, to the exact conditions.

I have insisted in all my teachings for thirty years (and I cannot now see where the method is in error) upon *waiting until the evidences of heart weakness are present* before heart remedies are given, prescribing aconite or veratrum, as exactly indicated, as sedatives, later giving digitalis or strychnine arsenate (a splendid remedy) precisely *when* they are indicated rather than in giving them with the special sedatives above named *in anticipation* of a probable heart weakness.

You concede in your remarks that an undesirable, pathologic condition is induced by the digitalis that is held in check by the two other remedies, and, on the other hand, that a condition would result, were the two sedatives given together, which the digitalis will prevent.

We endeavor, usually, to secure the exact action desired from an individual remedy, and not to modify the action of one remedy by another to secure a given result. Agents so given are antagonizing each other and the disease-processes at the same time; a double and questionable function. The other direct course is more rational, more reasonable, more simple, and, as clinical results will show, highly effective.

We are all of us trying to learn exact methods in drug application. This cannot be learned by studying *combinations* of drugs; we must study each remedy applied alone, and note its individual influence until we are perfectly familiar with its action. Then, in a given disease presenting precise indications for exact treatment, we select the remedy, not with reference to what *may* occur, but with reference to an *accurate application* of that remedy *to the exact conditions then present.* Generalization must be avoided; individualization is essential.

FINLEY ELLINGWOOD.

Chicago, Ill.

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[We are pleased to have Prof. Ellingwood's countercriticism. Certainly, if we have incorrectly stated his position—and in this case it seems that we have—we want to set our readers right. Naturally we should not advise the use of cathartics as a routine in all pneumonias, whether the bowel be empty or not. Yet, in our opinion, there are comparatively few cases where the purgative is not indicated, and fewer still where its use will do harm. Unfortunately we can not often tell by looking at the tongue, by interrogation of the patient, or even by palpation of the bowel, whether there is accumulation of residue or not. In case of doubt, therefore, to "clean out" is good practice. Not only does the removal of feces, with subsequent sterilization of the intestinal canal, reduce one toxic factor in the disease, but by determining blood to the mesenteric vessels the laxative agent helps to reduce the pulmonic congestion.

As to the second point raised by Prof. Ellingwood, the wisdom of the conjoint use of aconitine or veratrine with digitalin or strychnine, or both, we should perhaps explain again that we do not advise these combinations invariably in all cases of pneumonia. There are cases in which aconitine may be employed alone, and especially is this true in children. Those of our readers who are familiar with Shaller's "Guide" will remember the classic description of the use of this invaluable remedy in this disease—singly. But in a very large percentage of cases there are distinct indications for more than one of these remedies at the same time; and the symptom-complex is the excuse for the synergistic combination, every ingredient of which has its definite purpose. We agree that only indicated remedies should be given, and these *only when they are indicated.*

Prof. Ellingwood's seeming belief that digitalis is generally contraindicated the first day is based, apparently, upon the opinion that the object of the aconitine (or veratrine) is to weaken the heart, and that nothing should be conjointly administered which will interfere with this action. On the contrary, we do not believe that the drug should ever be given to the point of determinable depression; that its real usefulness is in relaxing the toxic spasm of the peripheral vessels, opening them naturally to the flow of blood, while small tonic doses of digitalin are given to overcome the cellular paresis, maintain the heart

and arteries in normal tone, and anticipate the cardiac weakness, which is a characteristic feature of the disease—and the symptom most to be dreaded.

The aconitine, digitalin and strychnine are *not* given to modify one another's action, nor as antagonists, but because each meets a definite indication presented by the disease itself. The two remedies acting together unload the congested lung and provide a natural, undepressed circulatory balance. The strychnine is indicated only when *weakness*—asthenia—develops or is imminent, and is only to be added under such conditions. A careful reading of pages 360-361 in the new edition of "The Text-Book of Alkaloidal Therapeutics" will make all of this clear.

We agree with every word that Dr. Ellingwood says regarding the study of the single drug. Yet, this belief does not make it less imperative, less of a duty, to give more than one drug at a time, *whenever each is indicated unmistakably*. We should give two, five, ten remedies at a time, if each had a definite, proven value in the case in hand.

When Burggraeve introduced the "trinity" he did the medical profession a great service, one that has been justified many times over by the final test of *results*.—Ed.]

A HOME FOR THE WIDOWS AND ORPHANS OF PHYSICIANS

A most worthy undertaking, one which should command the sympathy and financial assistance of the readers of Clinical Medicine, has been undertaken in Baltimore, Md., where a home for the widows and orphans of physicians is being established.

"It is as unfortunate as it is true," to quote *The Bulletin of the Medical and Chirurgical Faculty of Maryland*, "that medical men, as a class, are notoriously underpaid, and that, with their willingness to minister to the needs of others, they often combine a short-sighted improvidence for themselves and those dependent upon them. When death overtakes the physician, too often it happens that his family is left with very inadequate means of support. Desultory provision for such cases is neither safe nor satisfactory, and hence the wisdom of providing a permanent home will appeal strongly to thoughtful persons."

So far as we know, there is no institution of this kind in the world at the present time, yet we are constantly reminded of the destitution of the families of deceased physicians. The doctor is not a money-maker, and too often his dear ones come to want.

About $3000 is still needed to make it possible to open this institution. Surely, among the readers of this journal there must be thousands who can help with at least small sums, and a few who doubtless can and will contribute generously. The president of the Board of Managers is Mrs. Eugene F. Cordell, 257 W. Hoffman St., Baltimore, Md. Mrs. Cordell is the widow of a physician, and understands the need of such a home as this.

USES FOR CALCIUM SULPHIDE

I was somewhat amused in reading Dr. Bristow's letter (page 550, May Clinical Medicine) in which he wanted to know "what the blazes happened." He is right about "there being very little use to talk about aborting typhoid fever," for that is settled in every up-to-date physician's mind now—with the clean-out and the saturation with calcium sulphide.

If you will turn to your file for September, 1896 (Vol. 3, No. 9, p. 338), you will find an article on aborting typhoid fever, and will see that even at that early date I was using the sulphide, but not in such large dosage as now. Calcium sulphide will reduce the temperature in *all* germ diseases when given to saturation. I used it in smallpox on a mother and let her baby sleep with her, but kept the infant saturated with calcium sulphide for two weeks before vaccinating it; and it never showed any sign of the disease. This was genuine smallpox, for the father and two brothers died under other treatment at the hands of other doctors.

Calcium sulphide is a specific in gonorrhea, causing no bad results. I use it in

whooping-cough, finding that it modifies the disease and that there are no complications. I make it one of three drugs that will cure tuberculosis if taken early. I know this is dangerous ground, but *think a little*, then try, on some patient, calcium sulphide, calx iodata, and nuclein, in connection with *forced* feeding and open-air sleeping—note the results.

Calcium sulphide is both a local and internal antiseptic. That is why you should give it in enlarged glands. The temperature, in the Doctor's case, fell because he removed the cause (destroyed the germs and carried them off by the diarrhea—nature's method of clean-out). Calcium sulphide will cure boils. It will cure erysipelas if carried to saturation and the parts are covered with a good antiseptic powder, to exclude air. Keep away all moisture and you can cure any case. The CLINIC is all right.

G. F. PLOTNER.

W. Mansfield, O.

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This may seem like pretty strong doctrine—but don't be in a hurry to condemn it. Try some of these ideas first. By the way, note the similarity in the method of treatment for tuberculosis advocated by Dr. Plotner and that adopted by Dr. W. C. Goodwin of Philadelphia, reference to whose work will be found in the first Miscellaneous article of last month.—ED.

WHY OSTEOPATHISTS SHOULD HAVE A REGULAR MEDICAL EDUCATION

So much has been said, pro and con, about the osteopathic method of treatment that I have been asked to express an opinion on the subject, having taken an osteopathic course myself.

While not wishing to make any remarks which might injure any osteopathic friend of mine, still I cannot refrain from asking a few candid questions.

What reason could a sincere medical man have to oppose osteopathic treatment if it is of the nature as claimed by their school? Not one sincere properly informed medical man is against the practice of rational osteopathy provided the proper safeguards surround it. In fact, they believe in scientifically administered osteopathy and many resort to it when it seems indicated.

However, what physicians are opposed to is the army of utterly incompetent persons who have been licensed to practise under the Osteopathic Practice Acts. These people apply pressure and other manipulations without understanding, sometimes so severe as to injure the patient, while, in their ignorance, practically treating each and every disease alike, ascribing one cause for all; for, not being educated like regular physicians, they are unable to distinguish between different diseases. Otherwise, how could they claim to be able to cure diseases, in their advanced stages, such as typhoid fever, pneumonia, diphtheria, stomach ulcer, otitis media, catarrh, gonorrhea, syphilis, scabies, or stone in the kidney or bladder, internal tumors, cancer, diseased glands, besides many more of such maladies, saying that these are caused by irregular conditions amenable to their manipulations?

Surely, to permit such ignoramuses to practise is not safe-guarding the public, and it stands to reason that the more protection and safety we can place around our methods of treatment, the more the public is benefited. I do not desire to say one word against a sincere osteopath, since many among them are my friends; but in the interest of sick humanity, it is the duty of the medical profession to insist that everyone practising osteopathy should have a full medical education, for altogether too much harm can be inflicted by improper manipulation by ignorant men and women, or by preventing proper medication when it may yet do good.

If, as a class, they have improved now, and have, as they assert, such an excellent and complete course of studies in their institutions—even being, as they say, ahead of medical men—it is certainly easy for their graduates to pass an examination before the medical state boards and secure the regular M. D. license; and thus to be as fully qualified and safe in their work as other medical men are. It seems to me

that no honest osteopathist should object to this demand.

Think of a man hanging out his sign as an osteopath, say about three months before the Osteopathy Bill passed, and thus coming in with the rest and being admitted to practise and manipulate without previous examination, as has been the case in more than one instance. Many such self-styled osteopaths in practice have been known to be unable to name one single muscle in various parts of the body. It seems incredible that such men should venture to take up osteopathy as a method of earning a living. And these people, to cover up their ignorance, will use main strength in their manipulations and thus inflict upon the suffering public more injury than can be told. And yet it is claimed by them that their treatments and manipulations are on the muscles and nerves, and that of necessity they know their anatomy well. How, then, is it that here we find their practicians ignorant of one of their most important studies—anatomy.

It is to be hoped that, by agitating this question, our legislators may take up this matter early and vigorously and enact such provisions as will inure to the highest good of all.

EDWARD L. FINCH.

New York, N. Y.

ON COLLECTING BOOKPLATES

Since our note in a recent number of CLINICAL MEDICINE, to the effect that two members of the staff are interested in Bookplates, or Ex Libris, we have received a number of very pretty specimens and have reciprocated by sending our own. We again thank those of our readers who have remembered us, and want to ask all physicians who own or collect bookplates to send us specimens, assuring them that we shall exchange promptly.

The collecting of bookplates is not an idle pastime, as it might be thought. It presents many points of interest in regard to the conception of the design, the execution of the drawing, the reproduction (either by electrotype, by engraving, by wood-cut, and so forth). It is further interesting to watch the leaning of physicians toward certain conventional designs in bookplates in so far as they do not elect simply to use their armorials.

Some day the writer hopes to get up a little paper on bookplates of physicians, which will be published with illustrations. If you wish to send us specimens, kindly address them to the undersigned, in care of THE AMERICAN JOURNAL OF CLINICAL MEDICINE.

H. J. ACHARD.

Chicago, Ill.

OBSTETRICS AMONG THE INDIANS

I have read a number of articles in different medical journals, in which it was set forth that Indian squaws do not suffer at childbirth, because of their out-of-door life and exercise in the open air; that they just drop their young without any pain or expulsive efforts worth speaking of. While I agree that their mode of living develops muscle, strength, endurance of hardships, yet I am persuaded that there is some mistake about their not suffering.

When our country was yet very new, some sixty years and more ago, the Indians were so plenty in northern Illinois that their customs and mode of living were no secret to the white people. They built their tepees in the woods near the schoolhouse where I attended school, and frequently visited our homes; we divided our dinners with them at the schoolhouse, and went into their wigwams at will, so that their inner life, as well as their outer, was almost an open book to us. Of course, they were almost constantly on the move, seldom stopping in a place more than a few days—sometimes only over night—when they would move on, only soon to be followed by others.

In those days it was thoroughly demonstrated to the settlers living in districts where those tribes of Indians camped that the native women did suffer in bringing forth their young. But there was no groaning, whining or complaint. The poor creatures simply sought some rather secluded spot in the woods, if the weather

was warm, and in place of the obstetrical harness, a log or a stone was found as a brace for their feet, and a limb of a tree or a young sapling to cling to while in the throes of labor. Seldom anyone went near, except occasionally to reconnoiter and mark how things were going. If it became apparent that the poor sufferer were likely to die, then their medicine-men would collect and dance around the woman, using all their varied superstitious charms of cat's claws, snake venom, owl's brains, rattlesnake oil, and like things. But they brought about no change in conditions, only that sometimes the poor tortured subject pulled through in spite of all the odds against her. Then, as in the case of our modern pretenders and cure-all doctors, those hocus-pocus men were given great credit for their doings.

The squaws of those tribes did suffer, and even at times some died, as any strong-built person put together like iron, as they were, is liable to do; however, when the labor was over, it usually was all over. Then it was that their strength and robust make-up, the result of their healthful out-of-door life, served them to good purpose. They could strap the newly-arrived papoose on their back the next day and, mounting their pony, resume the journey with the rest, none the worse, apparently, for the little episode of the day before.

I am not saying that all squaws suffered alike, but a woman of strong, wiry, robust build may go down to the very gates of death, in her expulsive efforts, before there is any yielding of the stubborn parts, while another one of her sex, weak, delicate, loosely built, may scarcely realize she is in labor until she hears the baby cry. In her case, however, recovery is much more gradual and doubtful than in that of the former.

C. M. H. Wright.

Blaine, Ill.

PRONUNCIATION OF "DILATE" FAMILY

It has been one of my life's aims to cultivate pronunciation according to the best usage, but, to my chagrin, this day I discovered that I have been wofully sinning all the time against the honored "dilate" family of medical terminology, in that I gave the "i" the broad sound as in "fine," with the accent on the first syllable. My only consolation is that I have a multitude of brethren in crime against the language, and, so, to bring the others to a realizing sense of their culpability, I will ask them to get down their dusty dictionary and prayerfully look up these words: dilate, dilatated, dilator, dilatation, dilation, dilatant. Then confess, and sin no more.

Adolf G. Vogeler.

Chicago, Ill.

TRANSMISSION OF DISEASE BY MEANS OF BOOKS

The undersigned is preparing a paper upon "books as a source of disease," to be read before the next "International Congress of Hygiene," and in order to obtain data, respectfully requests the readers of this note to send him an account of any cases the source of which have been traced to books or papers or where the evidence seemed to make books or papers the offender. He would also further request information where illness or possibly even death has been caused by the poisons used in book-making.

All information procurable is wanted, to present as complete a paper as possible. As in the case of insects, which we now know to be "carriers of disease," it is first necessary to collect the scattered evidence in order to show that there is real danger in books; and this will compel better care to be taken of libraries and books, and thus improve the health of mankind.

Wm. R. Reinick.

1709 Wallace St., Philadelphia, Pa.

CHIONANTHUS FOR ENLARGED LIVER

With the consent of the editor, I wish to write for Clinical Medicine a brief account of a case the history of which ought to prove to any doubting Thomas the sureness and certainty of the results to be attained by direct specific medication and faithfulness in attending to "clean-up and keep-clean" treatment.

Some years ago I read in some progressive medical journal that chionanthus is the best preventive of gallstone formation as yet discovered, and from my own experience I would say that the author was correct, and, further, that it is also a very sure and certain remedy for congestion of the liver, "pain in the side," hepatic torpor, and liver insufficiency generally.

About the last of March, 1910, I was called to treat a lady, in her seventieth year, who had been suffering for four or five years from the condition of her liver, which had become greatly enlarged from constant and long-continued congestion, or hyperemia, and which gave her constant, continuous pain. On making a thorough examination, I found that I had to deal with inflammation and enlargement of the liver, inflammation of the right kidney, severe chronic gastritis, and prolapse of the vagina and rectum. The previous medical attendant seemed to have treated her mainly with calomel, for the liver, and with morphine, for the pain. The condition of the liver had probably been made much worse by several attacks of grip she had passed through. The symptom-complex was such as to give a doctor a fine opportunity for study.

The debility of the woman's gastric machinery was so great that I was forced for a long time to keep her on an exclusive diet of malted milk, any attempt to take anything more solid resulting in an enormous amount of gas and a great deal of pain. She had, frequently, very restless and sleepless nights, with great pain in region of right kidney, and partial suppression of urine. After a few hours these symptoms would subside with the passage of a great quantity of pale, colorless urine, causing me to believe that she had a large calculus in the pelvis of the right kidney, which at times acted as a ball-valve to shut off the flow of urine through the right ureter.

On examination, I found that her passages denoted almost complete absence of bile, and I was told they had been that way for months. It seemed to be a case where chionanthus ought to do good, and I proceeded to administer it combined with bryonia and gelsemium, alternated with natural sodium salicylate administered with a good deal of water. She also took regularly the gastrohepatic pills of podophyllin, leptandrin, hydrastis, aloin, capsicum, and gamboge. I also gave specific hyoscyamus, a few doses each evening, for her restless and sleepless condition.

While I found it necessary to change or discontinue some of the other remedies, the chionanthus was continued for days and weeks and months. The response was slow, but wonderfully good when it came. The passages became perfectly black for a time, the right side ceased to pain her, for the first time in years, and her stomach recovered its ability to digest solid food. We have achieved one result in her case that even I, with my perfect faith in specific medication, would not have hoped for—*her liver has gone back to its natural size.* While I felt sure that we could relieve her of her congestion and inflammation, I should not have expected a liver that had been enlarged for several years to return to its natural size. But that is what happened.

Wm. M. Gregory.

Berea, O.

ABDOMINAL SWELLINGS AND TUBAL PREGNANCIES*

In March of this year a woman of this city was suffering from a most peculiar disorder, accompanied at intervals with excruciating pain and other symptoms—interesting enough and worthy of an afternoon's discussion, but not what I intend to talk about this time. This lady was under the care of one of our colleagues, her disability covering a period of about five weeks. I will not go into details; suffice it to say that on two different occasions her own doctor was unable to answer to calls for immediate relief, and one doctor at one time and another doctor at another time responded and administered to her temporary relief. Of course, during this period of five weeks, various diagnoses had been made; various pills, tablets and liquid medicines had been prescribed, her own

*Read at the meeting of the La Porte County (Ind.) Medical Association, May 12, 1911.

doctor being partial to a certain large brown tablet.

On one of these occasions, when the doctor of the brown tablet was unable to respond immediately to a sudden summons, a brother practician hastened to the patient's relief, administered a hypodermic of morphine, gave some small green-coated pills, and departed. After the lady had ingested two of these small green pills, the physician of the brown tablet put in his appearance. By this time the woman was greatly disturbed over the very considerable and startling increase in the circumference of her lower abdomen, and pressed the doctor of the brown tablets for an explanation. The latter told her that the green pills supplied by the other doctor were the cause of that strange abdominal bulging, and admonished her not to take any more of those mischief-makers— scared her so, that she nearly vomited up the one taken but fifteen minutes before.

Now, brother doctors, it certainly is reasonable to suppose that this woman's confidence in doctors and doctors' pills was somewhat shaken by this extraordinary explanation, while in her own mind she must have questioned its correctness. Naturally enough, confidence in her own doctor tottered most of all. No immediate improvement ensuing in her case, the doctor of the brown tablet repeated his calls a few times, left his medicines regularly and gave careful directions as to their use. Needless to say, his pills were not swallowed nor his directions heeded, so that, when he withdrew from the case, the woman didn't care if he never made another call. Perhaps it is fortunate that the doctor of the green pills was not called again, because it is reported that he is singularly careless of the reputation of his brother practicians.

But now, as if that woman's suffering had not been enough, some "faith-healers" suddenly felt called upon to "do the Lord's work," and they came and prayed, to beat the band, for a short season. But that old bellyache stayed right on the job, and so, one night, she made up her mind that she wanted another "pill shooter." Thus it happened that yours truly was sent for.

I wish that I might go into the full details of this interesting case, but I am determined to make my paper as short as possible by bringing out only those facts which I deem essential to the story.

During the course of my examination the woman showed me the wonderful green pills, saying she was curious to know whether they had caused all that swelling, as that other doctor had said. I could not credit her statement; believed that she had misunderstood; questioned closely as to just what the doctor had said and what she understood by his words. She called her daughters as witnesses, so I could no longer doubt that the doctor of the brown tablets did wield a most mighty old hammer.

Similia similibus curantur! Tried, and never found wanting! That well-proved old law to which we may ever turn in times of direst need!

"Madam," said I, "your doctor, when he told you that those green pills caused all that swelling in your belly, just, merely— lied, that's all; for those peculiar symmetrical swellings, which are prone to occur in the lower part of a woman's abdomen have an etiologic factor entirely different from a little green pill—and your doctor knows this, and he knew that he lied when he said that the other fellow's green pills had caused the trouble."

Confidence was restored. It may interest you to know that my old pal, Dr. F. V. Martin, assisted by Doctors Blinks and Synder, performed a very successful operation for tubal pregnancy, and the patient lived to tell the tale. This woman believes, and often so says, that I saved her life. She believes, and often says it, that I am the only absolutely and strictly honest doctor in town, and a diagnostician beyond comparison. No one has ever heard me deny any of these imputations!

Discussion of this paper will be limited to three-minute rounds, under the Marquis of Queensbury rules.

FRANK R. LEEDS.

Michigan City, Ind.

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[This article would not be complete without at least a portion of the letter

from Dr. Leeds which accompanied it. In this letter he said:

"Your remarks under 'News Notes,' July number, regarding a good, lively scrap, to increase interest in county society meetings, is my excuse for sending the enclosed manuscript. If you wish to print it, you may; but only on condition that you print also the fact that the 'Doctor of the Brown Tablet' revealed his identity immediately at the conclusion of the reading of my paper. He entered a strong denial, and has treated me courteously and without malice since that time. He is a gentleman, Model 1911. Interest in our meetings was lively for a time, and I am now under bonds to be good."

In the way of comment we cannot do better than to reproduce the following "verse," perpetrated by our inspired friend McLaughlin, who gumshoes hither and yon about Indiana, dropping useful alkaloidal ideas into willing Indiana ears. Every native son of the Hoosier State is said to write poetry. Mac hasn't been in the state very long, or he might do this stunt even better than he has done. But on the whole it isn't "so worse." So, here it is:

Said the big brown tablet to the little green pill,
"You can't cure a tumor, and are bound to kill."
Said the little green pill to the big brown tab,
"You don't know the dif twixt a tumor and a crab."
So they called in a homeo to settle up the scrap,
He said, "For you both I do not care a rap."—
Proceeded then his forceps to employ.
The tumor? ah, yes, 'twas a fine little boy.

Further remarks seem unnecessary.—Ed.]

PUTRID INTESTINE THE CAUSE OF DIABETES MELLITUS?

Diabetes mellitus has long been considered an incurable malady; the hypothesis, and hence the treatment, has been directed to the symptoms rather than at the cause. Recent investigators of this disease have changed their ideas as to the cause of the malady, while clinical results prove beyond doubt that the successful treatment is by a physiologic therapy.

According to Osler, diabetes is a condition of disordered nutrition. Pavey says it is the result of a faulty carbohydrate metabolism. Professor Osborne, of Yale, terms it a disturbance of metabolism rather than a disease of itself. If diabetes is not a disease, but a disturbance of nutrition, then enteritis, colitis, and appendicitis are in the same class and result from the same cause. If, as has been proven, the colon bacillus is an important factor in the last-named disorders or malady, it is possible that this bacillus may be found in the blood of those afflicted with diabetes.

The latest accepted pathologic findings make the intestines the seat of enteritis, colitis, and appendicitis, and the pancreas the seat of diabetes; the particular part involved being the islands of Langerhans, which furnish their internal secretion-ferments to the blood.

After fifty-five experiments made upon dogs by Mering and Minkowski, they established the fact that diabetes never fails to appear after complete removal of the pancreas. This naturally would lead one to believe that the whole cause of this disorder was in the pancreas. Stronger evidence in support of this theory is furnished by the fact that, if one-fourth or one-fifth of the gland is allowed to remain, or, more significantly, if a portion of the pancreas containing the islands of Langerhans and still attached to its arterial supply is transplanted under the skin of the abdomen, and the remainder of the pancreas is removed, no diabetes follows; the removal of the transplanted portion, however, is followed by glycosuria. This certainly seemingly is almost proof positive that it is not the digestion of food in the intestines which is at fault; rather it incriminates the islands of Langerhans entirely.

Now let us see what part the intestines play in this disorder. Bayliss and Starling have discovered, in the lining membrane of the duodenum, a substance called by them secretin—a hormone, or chemical excitant—where it exists in an inactive state as prosecretin, which is a product of the epithelial cells of the duodenum. This prosecretin, on coming in contact with the dilute acid of the gastric juice, is converted into secretin, the latter then exciting the cells of digestion and thus causing an outpouring of their enzymes.

We now know that the functional activity of the pancreas, liver, intestines, and to some extent the stomach depends upon the presence of this secretin. Now, then, if this be so, why cannot we lay some of the fault, if not the cause, upon the duodenum and perhaps the entire small intestine? For would it not be reasonable to assume that it was a toxic condition of the blood, due to faulty metabolism caused by a bacillus? And they invading every organ of the body? How this can be, we find by reviewing our physiology.

The stomach empties itself, little by little, through the opening of the pylorus, its contents passing into the duodenum. As soon as the gastric hydrochloric acid in the chyme reaches the duodenum, it is neutralized by the alkaline secretions from the pancreas and bile. Then, as food passes on into the small intestine, the latter changes its prosecretin into secretin, which thereupon is carried, by the blood, to the pancreas and liver and there determines the outpouring of their respective ferments into the duodenum.

This presentation, I think, is sufficient to convict the intestines. Secretin must be subject to disturbances, and it is quite possible to believe that the disturbance is caused by faulty metabolism; that faulty metabolism is caused by a diseased condition of the intestines; that the diseased condition of the intestines is caused by the colon-bacillus; and then that the colon-bacillus may be taken into the system by drinking contaminated water.

One might argue that, if this is the case, those afflicted with enteritis, colitis or appendicitis must also be afflicted with diabetes; but is it not possible for those suffering with either disease to have in their blood a substance that would be antagonistic, or, perhaps, that in their case the islands of Langerhans may secrete a toxin that has a means of making the bacilli harmless? This would lead us to believe that the person must be susceptible to diabetes. The disease has occurred where the islands showed no degenerated changes.

Bainbridge and Beddard investigated the duodenum of six persons dying from diabetes in whom the pancreas was normal, yet little or no secretin could be obtained, although persons dying of other diseases always yielded secretin. I believe that persons with a healthy pancreas are not susceptible to diabetes. I also believe that by attacking diabetes with the idea of destroying the toxic condition of the blood, by disinfecting the intestines and withholding all starchy foods until sloughing of bowels are discontinued we will get results —at least I have.

CHARLES GERRISH.

Gray, N. Y.

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[Which brings us right back to the point which we have emphasized so many times —the importance of giving the closest, most scrupulous attention to the toilet of the alimentary canal; if we can keep it clean and clinically (not bacteriologically) aseptic, and adjust the character and quantity of food to the nutritive needs of of the body, most cases of diabetes will improve—and some will (apparently) get well.—ED.]

THE NECESSITY OF THE CORSET AS A THERAPEUTIC AGENT

We live in a sensuous world: our conception of the universe depends on the impressions received through our five senses. What may appear to be true today, may, by reason of a new point of view, be deemed false tomorrow. No statement of theory or belief should be given greater weight than any other, unless the facts observed in connection therewith are sufficient to convey like ideas to all individuals endowed with equal reasoning powers.

There are two methods of education, the natural and the artificial. By the natural method one observes particular facts and forms therefrom general ideas; by the artificial method one acquires a vast store of general ideas through hearing or reading what other people have observed or think. The first method is very reliable, but very slow. The second method is rapid, but very unreliable; and this explains why it so very frequently happens that, after a long course of learning, we enter real life either with an almost artless

ignorance of many important things or with wrong, distorted, unwholesome ideas about them.

We hear much of the enormous advantages that accrue to humanity from civilization, but little is said of the serious disadvantages to the individual from the effects of that same civilization. It is the purpose of this paper to call attention, very briefly, to one of these disadvantages, also the cause, and the method of avoiding, to a large degree, the discomforts resulting therefrom.

We know that everything is in mutation; decay follows reproduction and reproduction follows decay in an endless chain of sequence. We know from results obtained in the breeding of new and improved types of vegetable, fruit, flower, animal, that nature deals with all modifications of the normal relationship of the individual to its surroundings, by adapting the structure to the new conditions. We know that these adaptations are evolutionary and result in the "survival of the fittest," and that, in time, through the working of Mendel's law, there will be produced a type suited to the conditions. But, what of the hundreds of thousands—the millions—of individuals through whom this superior type is reached? It is this intermediate, evolutionary stage of progress that particularly interests mankind today.

Comparatively recent discoveries show that man has inhabited this earth for about 500,000 years, the greater part of which time has been spent by the individual unit in the recumbent or in a squatting posture. Man was originally a horizontal animal. With the development of the intellect the vertical position was slowly assumed, nature evolving from age to age additional attachments for the purpose of holding the internal organs in place. The change, of necessity, has been very slow, as all nature's processes are and, to this day, mankind in the natural as a savage, male and female, remains a fairly healthy animal with little use for institutes, asylums, -ologists or -isms.

The very rapid change in industrial conditions within the present generation makes for an almost universal need of keeping the trunk of the body constantly erect, either sitting in a chair or standing, for at least sixteen out of the twenty-four hours. These long hours, coupled with the confinement in poorly ventilated buildings, insufficient nutrition, worry, and other causes incident to modern commercialism, almost too numerous to mention, result in an enervated muscular system. The abdominal muscles relax, permitting the abdominal contents to sag, resulting in a condition known as enteroptosis, or Glenard's disease; this means that the stomach and intestines, kidneys, liver, and spleen, one or all, are dragged down and remain more or less permanently out of their normal position; a condition creating, in turn, more or less displacement of the organs located in the pelvic cavity. It may be noted in connection with this recently named disease of enteroptosis that there frequently appear, in the daily newspapers, photographs of groups of starving people, taken in the famine districts of India and China. These photographs show evidence of great emaciation, the skin closely adherent to the bones and dipping into every little depression; this is particularly noticeable about the chest, for here the ribs stand out in bold relief—but, in contrast, the victims are all very distinctly "pot-bellied." The muscles have relaxed, collapsed from exhaustion, and the abdominal contents have slid into the lower part of the abdominal cavity, producing the marked protrusion of the lower abdominal wall.

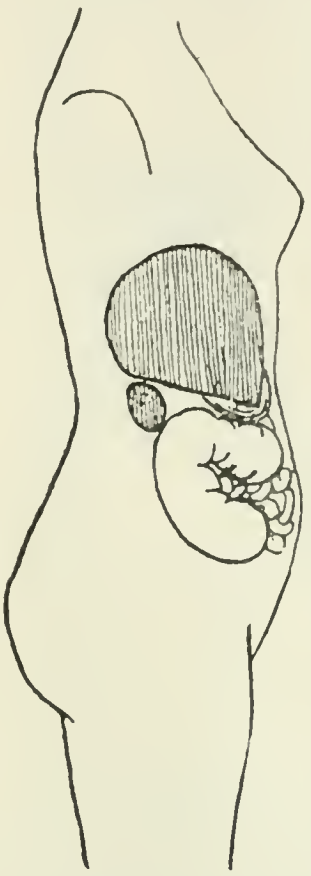

Fig. 1. Normal position of the abdominal viscera

Man was constructed as a horizontal animal, and the thirty feet of intestine carried in his abdominal cavity was at-

tached to the rigid spine, so as to function without obstruction. Nature provided loops, so that this tube, curling up and down and from side to side, was easily held in place by these attachments and the tense muscular abdominal walls. The uncivilized individual may rest if weary, but the civilized may not and hold the job. The relaxing of the abdominal muscles puts undue tension on these newer attachments and they kink the tube. The human body is shown to have many rudimentary parts, and in time will, of course, have more of them. Among these will be the colon, or large intestine, already in many an almost inert tube. The sagging of the abdominal contents resulting in kinks at the point of these later anchorings, or adhesions as they are known, produces a condition known as intestinal stasis and gives rise to a cycle of unhealthful consequences. The retention of fecal matter in the large, inactive, colon for too long a period results in putrification and the manufacture and subsequent absorption of various toxic bodies, causing a still further general enervation and sag of the muscles.

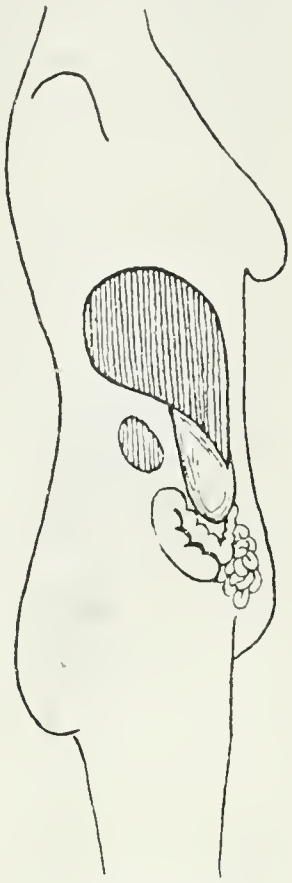

Fig. 2. Effect of muscular relaxation

Constipation, melancholia, backache, debility, biliousness, appendicitis, headache, early loss of complexion, and a long list of ailments common to the majority of the women and to many men of all civilized countries are a few of the disadvantages of our civilization. Investigations among the uncivilized races show, under normal conditions with them, an almost complete absence of these abnormal physical conditions that cause so much distress to the civilized individual.

There is no cure; but prevention is, to a large degree, quite possible. The prevention consists in replacing and holding in normal position all displaced parts by means of an artificial support, than which there is nothing equal or superior to an intelligently designed and properly fitted and applied corset.

A study of the illustrations given herewith will make the subject clear: Figure No. 1 shows the normal. Figure No. 2 shows the collapse of the abdominal contents because of the relaxing of the abdominal walls. Figure No. 3 shows the restoration to the normal by means of a properly applied artificial support. Figure No. 4 shows how this much to be dreaded disease may easily be induced by an imperfectly designed or ignorantly applied corset.

In recommending the corset, it must be distinctly understood that a high degree of intelligence and ability is demanded at every point. According to measurements taken from the uncorseted peoples, including the ancient Greek, as shown by the Venus of Milo, the female waist should measure 46.7 percent of her height. Nature appears to have devoted considerable time to establishing this proportion, and unless one has several hundred thousand years to give to the task it will not be worth while to attempt to change it.

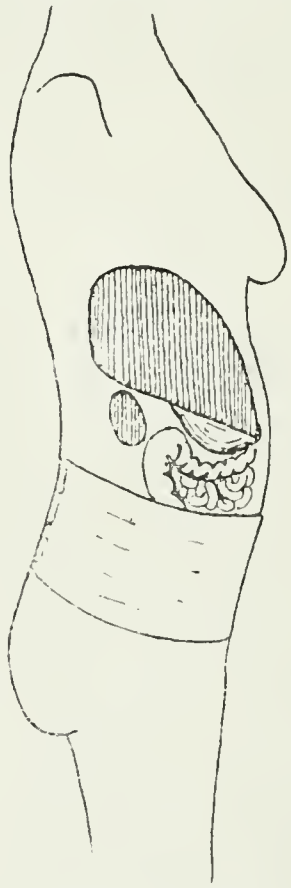

Fig. 3. The lower abdomen held up by the support

It will be noted that the ear y paragraphs of this paper apply more particularly to women. *Woman will not reason,* if she can help it. She acts on intuition, largely; and, if in doubt, is very conservative and will almost invariably stand by the old. The corset has held sway, it is said, since

about A. D. 910, and nothing but the French Revolution has ever for an instant broken the hold it has on the sex. For about two years the corset was abandoned, then France relapsed into civilization and the corset once more. The medical profession, the pulpit, reformers of all sorts and sizes have stormed and argued, but woman, for some reason (may it not have been instinct?), has stood by the garment, which, until in very recent years, has been a most injurious appliance, productive of vast harm to the human race.

It is stated by good authorities and has been very conclusively proven that more than fifty percentage of the women, and a very considerable percentage of the men, are suffering from enteroptosis. Roentgenography has opened a new line for investigating the subject, revising the accepted ideas of the anatomy and physiology of the stomach and intestines. Enteroptosis is, then, a very live issue, with widespread consequences.

Women must be taught to appreciate the Hogarth line of beauty and the normal human figure, and then to make practical application of that appreciation; must be taught that it is neither logical nor good sense to go to art galleries, there admire the perfect form, buy beautiful bronze or marble figures to adorn the home, then procure and wear wasp-waisted corsets, to her own and her children's endless misery. She must learn that style, style founded on the highly artistic normal figure, is easily possible without invalidism.

On the conscientious physician, more than any other, rests the responsibility of pointing out to woman in simple, untechnical language why she cannot crowd a fifty-inch hip and a forty-inch bust into a twenty-four-inch one-dollar bargain-counter corset without almost a certainly of having to endure personal physical distress and having the responsibility of having entailed endless misery on her descendants for all time. Women must be taught that with the marriage ceremony begin the realities of life. It is the first step in the perpetuation of the race, and each wife should seriously consider the duties of maternity, fully realizing that on her actions depend the health and happiness of succeeding generations.

It is now fashionable to have a Venus de Milo figure, to be uncorseted, natural. For some years the manufacturers have been pushing a straight-front, front-lacing corset, made on anatomical lines and on the general model of the ideal figure. Progressive dressmakers have fallen into line, and now, for the first time in the history of the world, the physician, the dressmaker, and the corset manufacturer are in accord. Is it not the duty of the physician, in the cause of humanity, to join with the manufacturer in pushing a strong educational campaign among the women, to the end that we may have a more normal generation follow the present one? It is only the honest physician that can stand between and guard the wasp-waisted and anemic shop-girl, the prematurely aged society woman, and the inexperienced developing young woman from the commercialized professional shark that would exploit her with pill, powder, pessaries, creams, applications, bands, bandages and operations.

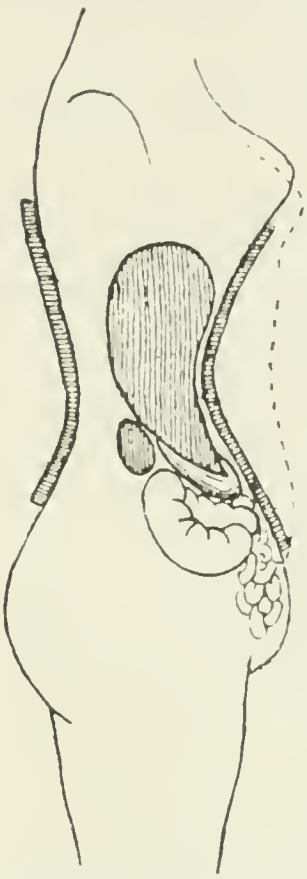

Fig. 1. Displacement due to an improperly made corset

A. S. Gray.

Grand Rapids, Michigan.

AWARD OF THE PRIZES

In the September number of Clinical Medicine we announced that we should give certain prizes for the articles which were voted by our readers to be of the most practical value, and we asked every member of the "family" to write and tell us his choice. We have been surprised at the exceedingly small number of votes. We

expected to receive hundreds at least, and maybe thousands. It is because we had looked for more that we have withheld the announcement of the winners so long. It hardly seems necessary to wait any longer. The result is as follows:

Dr. H. F. Lewis received the largest number of votes for his paper on "Salpingo-Oophorectomy." He will therefore receive the first prize.

Dr. William J. Robinson and Dr. Benjamin H. Breakstone received exactly the same number of votes, and the second prize will, therefore, be divided between them.

The third, fourth and fifth prizes go to Heneage Gibbes, T. H. Evans, and R. G. Schroth.

The interest in the giving of prizes is so slight that we have decided not to continue this feature, though quite a number of our readers have submitted papers in competition. To them we can only express our thanks and our apologies.

VACCINES AND BACTERINS

Although my degree isn't "M. D.," I take very great interest in everything published in your valuable magazine. Because of my inability to classify myself among physicians, I hesitate to offer you anything, but cannot resist the opportunity to discuss a matter related in the October number, on page 1101, in the editorial note. If I am wrong, I desire to be corrected, but I write according to my light.

I understand a vaccine to be of *living* though attenuated virus; bacterins to be of the *dead* culture of the virus.

Begging indulgence for intrusion, but knowing that you want to be right, and if you are, then I want to be right, I am

GEO. F. BABB, D. V. S.

Topeka, Kan.

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[The distinction to which the doctor refers has been made, though it is no longer employed in works on bacteriology and immunity. The word "vaccine" came into use in connection with vaccination against smallpox, and for many years was used in this connection almost exclusively. In this case (smallpox), to "vaccinate" meant to introduce an attenuated living virus, probably *not* bacterial. It might have been desirable to restrict the word to this usage, but it has long since lost that original meaning; and we are compelled to accept the recognized terminology.

According to Emery ("Immunity and Specific Therapy"), a vaccine is "a substance (usually a dead culture or living culture of mitigated virulence) the injection of which leads to the production of active immunity with less risk than that which accompanies an ordinary attack of the disease."

This author describes the four methods of producing active immunity as follows: (1) By inducing a natural (presumably milder) attack of the disease; (2) by the use of living vaccines (the most important being those of smallpox and rabies); (3) by the use of vaccines composed of dead bacteria; and (4) by inoculation with the bacterial toxins, the bacteria themselves having been filtered away.

If the doctor will stop to think over the new terminology—of "typhoid vaccines," "polyvalent vaccines," "bacterial vaccines," "stock vaccines," etc.—he will realize that this word (not a satisfactory one, to be sure) has already acquired a generic significance, and has probably come to stay.—ED.]

ANOTHER DOCTOR DREAMS

I wish to remonstrate with Dr. Sophia Brunson. On page 1096 of the October CLINIC she favors us with "The Doctor's Dream." I admit the beauty of the poem and congratulate her upon the sentiment and beauty of her addition to it. But the fact is that in a sense it is rank plagiarism; and the fact of the matter is, anyway, that she is away off in the recital of the actual events that took place. If you listen to my story you will see that I can not fail to know the truth.

Among the numerous offspring of my grandfather (sixteen in all) there was an eldest son named James, and called Jimmy, and a youngest son named Nathaniel, and called Nattie. Both became doctors and both located in that part of southeastern

Illinois known as "Egypt." Nattie was my beloved father. Jimmy practised medicine for 55 years and Nattie for 30 years. Now my good, kind brethren, those of us who roll over smooth city streets in our automobiles, and those heroes who brave the hardships of a country practice, reflect what those years of work meant in the pioneer days of southern Illinois. But then—twenty years ago Nattie died. No one who knew Dr. Bristow will for a moment doubt that if there is a place "where weary souls may find a balm, and weary feet a rest," he went to that place. Five years ago Jimmy died. Being a just man he also went to the place where his baby brother was to be found.

Supposedly.

The facts are that Jimmy spent some considerable time looking for the small brother and failed to find him. Had any one seen him?

"Yes, he was here some time ago, but lately we have not seen him."

Finally Jimmy sought permission and an escort, that he might search for Nattie in those other regions where no doctors ever go.

Voluntarily.

After a weary time he came at length to a prodigious wall and gazing up he thought he discerned a form seated on top of the wall. Bidding the escort wait he clambered up, and there was Nattie! !

"Oh! Nattie——But what in——? ?"

"Why, hello, Jimmy. Have a seat. I thought you would come."

But Jimmy never heard, for on the further side of the wall he had spied a throng and a country—a country of cold, and wind, and snow, and cutting frost, and sharp rough roads, and rain, and hail, and lightning, and fierce winds, and dust, and heat, and glaring light and gloomy darkness. The throng pursued its weary way through this dismal land, some on foot but mostly on the backs of misshapen beasts, and all without sleep, and all sorely afflicted with an eternal weariness.

For a long time Jimmy gazed, then finally said: "Tell me, Nattie, tell me what on Earth did these people do?"

Said Nattie: "Why, these are the people who never paid their doctors' bills."

Settling himself into a comfortable position beside his brother, Jimmy called down to the escort: "Never mind me, I'm going to stay with Nattie."

I trust that Dr. Brunson will take the correction in the good spirit in which it is given, for, you see, being a family matter this way, I can not be mistaken.

J. H. Bristow.

Portland, Ore.

THE FORMULA OF DIORADIN

We have just received a communication from Louis Gero, Ltd., sole American agents for the new French product, Dioradin, explaining that a serious error crept into the published formula of their preparation, which was given in these pages last month. This error related to "peptonized iodine." The use of this term was due to a mistranslation of the original article. It should read "iodized peptone." This, of course, is perfectly understandable. Dioradin seems to be an exceedingly valuable preparation and deserves a careful trial in cases of tuberculosis and other conditions. For information address Louis Gero, Ltd., 206 Broadway, New York.

HEALTH EXHIBIT AT THE ILLINOIS STATE FAIR

The State Board of Health had a most striking exhibit at the fifty-ninth Illinois state fair, and no one who visited the "greatest fair on earth" failed to appreciate this public-health display.

The booth was located immediately to the right of the head of the west stairway in the exposition building, and in its uniqueness and attractiveness excelled even the exhibits of the state health department of previous years. The exhibit in its entirety was instructive, being devoted particularly to various means of disseminating knowledge regarding the cause, prevention, and the results of tuberculosis and typhoid fever.

On the walls of the booth were arranged, in a forceful sequence, charts, placards, maps, legends—not in exaggeration, but portraying cold, and in several instances,

lamentable facts regarding the cause of consumption, its vast toll on mankind, and telling in terse phrases the means of avoiding and of influencing the ravages of this malady, which causes one out of every

WHY SANTA WAS LATE.

We like Christmas, but old Santa Claus does hold most of the cards at this time of the year. Picture from *Puck*.

seven deaths that occur, and takes its heaviest toll from those of the active working-age—over one-half of the total deaths from consumption in Illinois striking between the ages of twenty and forty.

Approaching the booth, one's eyes immediately fell upon a large illuminated sign bearing this inscription in bold type: "Every time a light goes out, some one in the civilized world dies from consumption —two every minute, 120 every hour, 2880 every day, 1,000,000 every year." Bordering this, were red incandescent lamps, and every thirty seconds the lights successively were extinguished automatically, depicting a death from consumption. This sign formed the center of the tuberculosis exhibit.

There were two additional exhibits to the tuberculosis section of the booth which in themselves were a worthy credit to the board's educational public-health crusade. These were "illusion models," one a contrast room illusion, the other known as the "death illusion." The contrast room model consisted of two miniature bedrooms, one clean and tidy, and the other dirty and disarranged. The spectator looked through an opening, when the miniature rooms flashed, one at a time, before his eyes, changing from the dirty, untidy to the sanitary and attractive.

The second illusion model showed the death-rate from consumption. Every thirty seconds a doll representing a healthy person changed to a skeleton, illustrating the rapidity of deaths from consumption in the civilized world. There were also presented different types of window tents used in the fresh-air treatment of consumption.

On the opposite side of the health exhibit were, attractively and conveniently arranged, microscopic specimens, the factors active in the dissemination of preventable diseases, specimens of tuberculous organs and tissues, a doll-house illustrating a wrong way and the right method of house disinfection, and the materials used in same, and the equipment and methods necessary in isolating and recognizing bacteria or disease germs. Specimens under the microscope which attracted no little attention of the throngs were those of a house-fly's legs and wings, on the hairs of which were shown the bacilli causing typhoid fever, and illustrated how the pest had earned the title of "typhoid-fly."

Then there were platings of polluted water, contrasted with those from pure water, showing the growth of sewage bacteria in the former. Along with these, was a sample of sparkling, and to all appearances pure water, but which in reality contained the death-dealing typhoid germs, while beside this sample was one of turbid water, not at all inviting, but potable or safe for drinking purposes. These illustrated the fact that the physical appearance of water is not necessarily an index of its purity. On this table also was shown what the board pleased to call the "typhoid trio"—three flasks, containing milk, water, and flies, respectively. These are the principal means in the transmission of typhoid fever. There were also plates of good milk, bad milk—plates exposed in clean and dusty barns. Air-plates showing the bacteria spread by sweeping, and the numbers out-of-doors as compared with crowded rooms.

Other specimens were cultures of the bacilli causing tuberculosis, typhoid fever, and diphtheria; tuberculin, diphtheria antitoxin, typhoid vaccine, smallpox vaccine,

The visitor was informed that Illinois is the only state in the Union furnishing diphtheria antitoxin free to the rich and poor alike, ready for immediate use.

The destructive effect of tuberculosis on the various organs of the human body was shown by a fine collection of diseased organs and tissues, exhibiting tuberculosis in its various stages and varieties, of the lungs and of the spine—showing also how it may be spread through the body to other organs: the stomach and intestine—by swallowing, and to remote organs by the blood.

JOHN DILL ROBERTSON.

Chicago, Ill.

POETRY ABOUT THE HUMAN BODY

A reader of CLINICAL MEDICINE, Dr. S. A. Orwig, of Mansfield, O., sends the poem which we print below. It is clipped from a newspaper published in 1860, and the authorship is unknown. The verse is beautiful enough to deserve preservation in the doctor's scrap-book. And, by the way, every doctor who likes poetry, especially that dealing with the profession and with medicine, should have a scrap-book to preserve things like these:

THE ANATOMIST TO HIS DULCINEA

I list as thy heart and ascending aorta
  Their volumes of valvular harmony pour;
And my soul from that muscular music has caught a
  New life 'mid its anatomical lore.

Oh, rare is the sound when thy ventricles throb
  In a systolic symphony measured and slow,
When the auricles answer with rhythmical sob,
  As they murmur a melody wondrously low!

Oh, thy cornea, love, has the radiant light
  Of the sparkle that laughs in the icicle's sheen,
And thy crystalline lens, like a diamond bright,
  Through the quivering frame of thine iris is seen!

And thy retina spreading its lustre of pearl,
  Like the far-away nebula, distantly gleams
From a vault of black cellular mirrors that hurl
  From their hexagon angles the silvery beams.

Ah! the flash of those orbs is enslaving me still,
  As they roll 'neath the palpebræ, dimly translucent,
Obeying, in silence, the magical will
  Of the oculomotor—pathetic—abducent.

Oh, sweet is thy voice, as it sighingly swells
  From the daintily quivering chordæ vocales,
Or rings in clear tones through the echoing cells
  On the antrum, the ethmoid and sinus frontales!

The preceding verse reminds me of Dr. Oliver Wendell Holmes's beautiful "anatomist's hymn," well known to every reader of the genial "Autocrat of the Breakfast Table." Although, of course, every member of the "family" is familiar with it, we shall all be the better for reading it over occasionally. I love to turn to it again and again. It follows:

Home of Dr. F. R. Stoddard, Shelburne, Vt

THE LIVING TEMPLE

Not in the world of light alone,
Where God has built his blazing throne,
Nor yet along in earth below,
With belted seas that come and go,
And endless isles of sunlit green,
Is all thy Maker's glory seen:
Look in upon thy wondrous frame—
Eternal wisdom still the same!

The smooth, soft air with pulse-like waves
Flows murmuring through its hidden caves,
Whose streams of brightening purple rush
Fired with a new and livelier blush,
While all their burden of decay
The ebbing current steals away,
And red with Nature's flame they start
From the warm fountains of the heart.

No rest that throbbing slave may ask,
Forever quivering o'er his task,
While far and wide a crimson jet
Leaps forth to fill the woven net
Which in unnumbered crossing tides
The flood of burning life divides,
Then kindling each decaying part
Creeps back to find the throbbing heart.

But warmed with that unchanging flame,
Behold the outward moving frame,
Its living marbles jointed strong
With glistening band and silvery thong,

And linked to reason's guiding reins
By myriad rings in trembling chains,
Each graven with the threaded zone
Which claims it as the master's own.

See, how yon beam of seeming white
Is braided out of seven-hued light;
Yet in those lucid globes no ray
By any chance shall break astray.
Hark, how the rolling surge of sound,
Arches and spirals circling round,
Wakes the hushed spirit through thine ear
With music it is heaven to hear.

Then mark the cloven sphere that holds
All thought in its mysterious folds,
That feels sensation's faintest thrill
And flashes forth the sovereign will;
Think on the stormy world that dwells
Locked in its dim and clustering cells!
The lightning gleams of power it sheds
Along its hollow glassy threads!

O Father! grant thy love divine
To make these mystic temples Thine!
When wasting age and wearying strife
Have sapped the leaning walls of life,
When darkness gathers over all,
And the last tottering pillars fall,
Take the poor dust Thy mercy warms
And mold it into heavenly forms!

There is no poetry that can surpass that of the Bible, and there is no poetical description of our wonderful body that can excell that marvellous picture of the waning of the vital powers, as "the evil days draw nigh," given in the sermon to youth found in Ecclesiastes. We quote the metrical version from "The Modern Readers Bible:"

THE COMING OF THE EVIL DAYS—A SONNET

Remember also the Creator in the days of thy youth:
Or ever the evil days come,
And the years draw nigh,
When thou shalt say, I have no pleasure in them:

Or ever the sun
And the light,
And the moon,
And the stars,
Be darkened,
And the clouds return after the rain:

In the day when the keepers of the house shall tremble,
And the strong men shall bow themselves,
And the grinders cease because they are few,
And those that look out of the windows be darkened,
And the doors shall be shut in the street;

When the sound of the grinding is low,
And one shall rise up at the voice of the bird,
And all the daughters of music shall be brought low;

Yea, they shall be afraid of that which is high,
And terrors shall be in the way;

And the almond tree shall blossom,
And the grasshopper shall be a burden.
And the caper-berry shall burst;

Because man goeth to his long home,
And the mourners go about the streets;

From *Puck* by permission
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THE ANIMAL OR HUMANITY?
In a series of powerful cartoons *Puck* is answering the arguments of the anti-vivisectionists

Or ever the silver cord be loosed,
Or the golden bowl be broken,
Or the pitcher be broken at the fountain,
Or the wheel broken at the cistern;

And the dust return to the earth,
As it was;
And the spirit return unto God
Who gave it.

MUSHROOM POISONING

The growing interest in the study and use of mushrooms as an article of food, and that from time to time cases of poisoning therefrom occur, should lead physicians to give attention to this subject and study the treatment of poisoning from this source.

To maintain the confidence and respect of the laity, the physician must be able to do more than was reported to me by a victim of minor mushroom poisoning, who wrote: "The physician summoned looked at me during each of three visits he made, offered nothing by way of relief, but afterward sent me a bill for $10 which I paid with poor grace."

The poisonous mushrooms, or toadstools as they are often called, are of two classes: (1) the minor, or irritant, (2) the major, or deadly, poisons. The first act locally on the intestinal tract. Of these may be mentioned lepiota, morgani and clitocybe illudens. While the eating of such will cause the person to be more or less ill for a few hours or a day, vomiting and purging being common symptoms, unless great quantities have been eaten recovery takes place.

Of the major, or toxic, class, little has been learned. The poisonous properties are due to certain principles which have been isolated. The two best known are muscarine and phallin. Both exist in one family of mushrooms, the amanita. Muscarine is most abundant in amanita muscaria, and in a less degree in amanita pantherina and also in bolitus luridus.

The action of muscarine is so violent that 0.06 gr. is a dangerous dose for a man. It is used by the inhabitants of northern Russia as a means of inducing intoxication.

Some research has been attempted to determine the nature of the amanita poisons and to discover an antidote. W. S. Carter, Professor of Physiology of the University of Texas, has made over 1000 experiments with the four deadly varieties of amanita, with definite results. He calls attention to the fact that in mushroom poisoning in man no knowledge of the species can be obtained. For sometimes a number of varieties have been gathered and cooked together, some of which may be of the edible and some of the poisonous kind, with corresponding degree of poisoning; or one may be of an irritating and another of the deadly variety. Cooked together, these would produce the symptoms of both kinds. The most reliable study of the amanita poisons has been gained from experiments on the lower animals.

In *The Boston Medical and Surgical Journal*, Nov., 1879, are recorded the results of experiments by Dr. Ott, once a demonstrator of physiology at the University of Pennsylvania, as follows:

"Frog sternum removed. At 3:55 p. m., heartbeat, 36 per minute. At 3:58, injected 0.0005 Gram muscarine subcutaneously. At 4:00, heart stopped in diastole; on pricking, makes contraction; the ventricle is distended with blood, bulbous. At 4:03, gave 0.001 Gram atropine subcutaneously. At 4:05, heart spontaneously began to beat 28 per minute. It continued beating until next morning, and the animal had completely recovered from the paralysis induced by the muscarine."

A repetition of the experiment gave about the same result. Since then the frequent use of atropine by physicians, in muscarine poisoning, has in some cases been followed by good results.

Chas. McIlvain, in "One Thousand American Mushrooms," publishes at length the history of a family of Shenandoah, Pennsylvania, who were poisoned by eating amanita vernus. Dr. J. H. Shadle treated the family and reported the history of the cases at length to the author. He began the use of atropine with gr. 1-180 + gr. 1-90 + gr. 1-90 + gr. 1-90 (total, 7-180 grain), at intervals of six to eight hours. Of five poisoned two died, which the doctor attributed to not using atropine earlier

and the fact that so much had been ingested that the poison had become too virulent to be counteracted.

Dr. F. F. Wood has also successfully administered daturine and hyoscyamine in such cases. Prof. Schniff of Italy advocated the use of stramonium.

Unfortunately there is little medical literature on the symptoms and treatment of poisoning from amanita poisons. Most of that at our command is to be found in writings of authors on the study of fungi. From Chas. McIlvain, in "One Thousand American Fungi", I quote the following:

"Symptoms of muscarine poisoning do not usually appear for eight to twelve hours after eaten, unless a large quantity has been eaten, when they may appear in one-half hour. Usually the first symptoms are cramp-like pains in the extremities. Later, colicky pains in abdomen, burning thirst, vomiting and purging. The pulse may be slow and strong at first, but later becomes rapid, small and feeble. The blood pressure is low, and as a result faintness is a common early symptom. Extreme pallor is often noticed. The secretions are increased. Sweat and saliva may be secreted in abnormal quantities. The pupils are much contracted. Dulness of vision or double vision may be an early symptom. The respirations are slow, becoming shallow and stertorous when poisoning is severe. The mental state may be clear at first, but becomes dull, deepening into unconsciousness and deep coma, if much has been taken."

V. K. Chestnut, Department of Agriculture (Circular No. 13, Division of Botany), after observing two cases of poisoning in Washington, reported symptoms as follows:

"They appeared in from one-half to two hours. Vomiting and diarrhea, with almost always a pronounced flow of saliva, suppression of urine, and various cerebral phenomena, beginning with giddiness, loss of confidence in one's ability to make ordinary movements, and derangement of vision."

Treatment.—If called early, before the ingested mushrooms have had time to be absorbed from the alimentary canal, evacuants are generally advised, but some authors discourage their use. Full doses of zinc sulphate or apomorphine are recommended, though in cases where profound stupor exists these may be inactive.

Atropine is the best-known remedy. It relieves by removing inhibition of the heart, which occurs as an early symptom. If eight or twelve hours have elapsed, as soon as called administer, hypodermically, gr. 1-100 to gr. 1-50 of the antidote, repeating every half hour until 1-20 grain in all has been given or recovery assured.

If purgatives are used, the oleaginous are preferred. The intestines should be cleansed and washed out with an enema of warm water and oil of turpentine, after first giving the atropine hypodermatically.

Treat symptoms as they arise. Strychnine and suprarenal extract can be used to advantage in restoring the circulation, especially late in the poisoning. Apply external heat if the temperature is subnormal. The subcutaneous injection of a 0.6- to 0.7-percent solution of sodium chloride should be tried in severe cases seen late in the poisoning. Atropine is of little value if not used in the early stage of poisoning with this substance.

Tobacco is mentioned as an antidote. In New Ulm, Minnesota, two young men were poisoned by eating amanita. One died, the other recovered. In conversation with the latter he stated that he attributed his recovery to the fact that he had used tobacco freely.

Phallin.—Its exact chemical nature is not known. It is a very deadly poison, 0.0015 Gram per 2 pounds weight of the animal being a fatal dose for dog or cat. It is the active principle of the most deadly of all mushrooms, the amanita phalloides, or death-cup fungus.

Of its effects, and so forth, I again quote Chestnut:

"The fundamental injury is not due, as in the case of muscarius, to a paralysis of the nerves controlling the action of the heart, but to a direct effect on the blood-corpuscles. These are quickly dissolved by phallin, the blood-serum escaping from the blood-vessels into the alimentary canal and the whole system being rapidly drained

of its vitality. No bad taste warns the victim, nor do preliminary symptoms begin until nine or fourteen hours after the poisonous mushrooms are eaten. There is then considerable abdominal pain, and there may be cramps in the legs and other nervous phenomena such as convulsions and even lockjaw or other kinds of tetanic spasms. The pulse is weak. The abdominal pain is rapidly followed by nausea, vomiting, and extreme diarrhea; the intestinal discharges assume the rice-water condition characteristic of cholera. The latter symptoms are persistently maintained generally without loss of consciousness, until death ensues, which happens in from two to four days. There is no known antidote by which the effects of phallin can be counteracted.

"Treatment should be to remove the undigested material, if not already vomited, by methods suggested for cases of poisoning by muscarine. If the amount of phallin taken up by the system is not too large, it may wear itself out on the blood, and the patient may recover. This may be assisted by transfusion into the veins of blood freshly taken from some warm-blooded animal, or a 0.6- to 0.7-percent salt water-infusion is the most rational treatment. At least a quart should be injected. It restores the blood pressure by increasing the fluid in the vessels, and aids the organs of excretion; and relieves the intense thirst. The use of large doses of suprarenal capsule is reported to afford more permanent relief."

In *The Medical Press*, Sept. 30, 1899, is reported the case of a man 52 years of age who ate amanita phalloides, with the usual symptoms, and treatment without benefit. Pulse dropped to 22 per minute. One quart of saline solution administered was followed by immediate improvement. In an hour the pulse was 60, temperature normal. Next day he resumed his work.

Helvelic acid is another deadly poison, one which is sometimes found in gyometra esculenta, particularly in old or decaying specimens. The young and fresh are considered free from the poison. The symptoms are similar to those of the deadly phallin. There is no known antidote. Treatment should be such as is recommended for phallin.

M. S. Whetstone.

Minneapolis, Minn.

A WONDER WORKER

A Missouri subscriber of Clinical Medicine sends the following prescription, with this comment:

Enclosed find copy of a prescription given for angina pectoris by a prominent physician of ———, Missouri. To me it is a curiosity.

Here's the prescription:

Sod. bicarb.	dr. 1-2
Pulv. thyroids	dr. 1
Pulv. asafœtida	dr. 1
Quinine sulph.	dr. 1-2
Strychnine	gr. 1
Ac. arsenous	gr. 1
Pulv. gentian	dr. 1-2
Pulv. lactopep	dr. 1-2
Pulv. hydrastine	grs. 10
Pulv. digitalis	grs. 8
Hydr. chlor. mit.	grs. 3
Ext. cascara sagrada	grs. 15
Ext. belladonna	grs. 4

M. ft. caps. No. 30.

Sig. One capsule T. 2d. before meals an hour.

Is there any significance in the presence of thirteen ingredients in this prescription? There is said to be luck in odd numbers!

DIPLOCOCCUS NEPHRITIS

For the last few years the writer has been observing the effects of diplococcus pneumoniæ upon the human system, other than upon the respiratory organs. Attention has been called several times to the fact that these germs, when once in the system, enter the blood and may become pathogenic in any part of the body where for any cause there is a lesion.

In my own person I found that diplococcus arthritis resulted from a bruised knee. In another case a bruised prostate, the result of riding a faulty bicycle saddle, set up diplococcus prostatitis. Several times in my routine laboratory work these germs have been found in the urine. The results of treating such a case with what I have found to be specific for these bacteria is what is reported below.

Mrs. R., 64 years old, is the patient. At the time of her first illness her daughter was in school in Chicago, but was called home to

act as her mother's nurse. Though well acquainted both with mother and daughter, I knew nothing of the nature of the mother's illness till September 6, 1910, when a sample of urine was sent me for analysis. The report returned showed a specific gravity of 1030, a large amount of sugar, acidity 80°, and on standing a few minutes, a precipitate that half filled the glass. This consisted of blood-cells, bilirubin, disintegrated tissues, and large numbers of diplococcus pneumoniæ and a less number of bacillus urinæ. No recommendations as to treatment were made, that being left to her attending physician.

Three days later a second sample showed a specific gravity of 1028 and the other conditions somewhat improved. But a third sample, September 9, was worse than the first, having a specific gravity of 1031, with the other conditions corresponding. (This periodicity of five or six days had been noticed in other cases of diplococcus invasion.) In the letter accompanying the third sample, the daughter wrote that the physician said her mother could not live more than a few weeks; if I had any recommendations to make, they wished I would do so.

Incidentally I learned that the sick lady was taking a diabetes mellitus compound and the triple arsenates with nuclein, and I at once advised the addition to these of creosote, 1-67 grain; arbutin, 1-67 grain; chionanthin, 1-6 grain; with directions to give 5 tablets of the first and 2 each of the other two after each meal. Improvement began at once, so much so that, at the next visit, the physician told the daughter that if her mother kept on at that rate she would get well.

Improvement did continue without interruption. I found, however, that after the dipplococcus had almost disappeared, there still were tracés of sugar, and too many of the bacillus urinæ. For this condition, I sent the daughter a combination of formin, arbutin and ammonium benzoate, with instruction to give 2 tablets a day. The last examination of her urine, which I had made for me on December 7, 1910, showed a specific gravity of 1013, without a trace of sugar, and so few bacteria that it was difficult to find them.

Mrs. R. is up and about as usual, the only change from her former self being that strength has not been quite restored.

G. H. French.

Carbondale, Ill.

[Since sending the above article, written some months ago, Dr. French has reported as follows concerning this case: "Uranalyses have been made from time to time up to June 19, 1911, with either no sugar or only a trace. Mrs. R. still continues to improve in health and strength."—Ed.]

BINDING MAGAZINES

While there is no method that is as satisfactory for binding magazines as that of letting the publisher do it for you, many prefer, for one reason or other, to do it themselves.

I think the following method is as satisfactory, for the expense and labor involved, as any.

Remove the advertisements, in order to reduce the bulk of the book. Then, taking the year's issues, lay them on a board and even the edges. With a hammer drive a wire-nail through the upper and lower borders of the back edge, making two holes, about an inch apart and about an inch from the top and bottom edges. That is to say, four holes in all, and about an eighth of an inch from the binding edge. The nail used should be of the caliber of a No. 8 French catheter.

As each hole is made, withdraw the nail, and pass through the orifice an end of a pipe-cleaner, making of it a staple, which, as the second hole is made, is drawn through and clinched on the back of the volume. These cleaners cost five cents for two dozen and should be on sale in any tobacco store.

The advantages of these pipe-cleaners as binders is that they are soft, thus not tending to wear the holes larger; they are as strong as can possibly be required, and they are as flexible as cord, thus enabling torsion to be applied to make the leaves set solidly together. The ends can then be clipped off and, if desired, a strip of adhesive plaster applied over them to prevent any scratching from the ends.

This, however, will not serve for THE AMERICAN JOURNAL OF CLINICAL MEDICINE, which is too substantial a volume. It might, however, be divided into two parts of six months each.

JAMES E. COSGROVE.

Brooklyn, N. Y.

NEWS NOTES

The Hahnemann Medical College, of Philadelphia, is raising a $1,000,000 endowment fund; of this sum, $200,000 has already been subscribed.

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One of the new laws of California provides for the commitment of drunkards to asylums for the insane. Be good or—"your wife will get you if you don't watch out."

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During the first eight months of 1911, twenty-five hundred persons were bitten by dogs in New York City. Nineteen-hundred and twelve of these were found rabid, and seven fatalities occurred as a result of these bites.

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The cholera is said to be spreading all over Italy, the largest number of cases occurring at Leghorn, Rome, Naples, and in the other large seaport towns. Thousands of deaths have also been reported from European and Asiatic Turkey.

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Mr. Frank B. Leland, of Detroit, has arranged to give an open-air public school to the city of Detroit, if a site is provided and the board of health and board of education will consent to the work. This school will be used for the instruction of tuberculous children.

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The City of Chicago has purchased 160 acres of land at North Fortieth, Bryn Mawr, and Peterson avenues, and is expecting to build in this locality a great municipal tuberculosis sanitarium. The plans have been prepared for the buildings and the total cost of the institution is estimated at about $878,000. It will provide accommodations for 1500 patients a year.

We are sorry to learn of the death of Dr. Robert Lowell Burrage, who was medical director of The Prudential Insurance Company, and Chief of the Company's staff of 11,000 medical examiners in the United States and Canada. Dr. Burrage died October 29, at Newark, N. J. He was fifty-four years of age and had been with the Prudential nearly twenty-two years.

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Dr. George W. Webster has tendered his resignation as president of the Illinois State Board of Health. Dr. Webster has held this position for ten years, and for eleven years has been a member of the board. The many friends of Dr. Webster, who know the efficiency and conscientiousness of his work, will regret exceedingly that he has found it necessary to take this step.

—

An inspection of the pupils of the Altgeld school in Chicago discloses the fact that out of 237 pupils 67 were diphtheria carriers. The inspection was ordered by the Health Department in the hope of stamping out an epidemic which was discovered in the Englewood district. The whole neighborhood has been infected, but fortunately up to the time of writing there have been no deaths.

—

On October 16, several hundred physicians and business men gathered in the assembly hall of the Massachusetts General Hospital, to commemorate the sixty-fifth anniversary of the employment of ether for painless surgery by its discoverer, Dr. William T. G. Morton. Dr. Simon Flexner, director of the Rockefeller Institute, was the guest of honor and made the commemorative address.

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The newly elected Lord Mayor of London, Sir Thomas Boor Crosby, M. D., is a physician. From an English exchange we learn that since the office of Lord Mayor of London was created, more than seven hundred citizens have held that important and much coveted post, but this is the first time in the history of London that its chief citizen has been chosen from the ranks of the medical profession.

Dr. Waugh and his friends are establishing an absolutely sanitary summer home on the shore of Lake Michigan, near Muskegan. It is easy and cheap of access, so that a Chicagoan may spend Sundays with his family there and be back early Monday morning; well shaded, primitive, safe, best bathing possible; no mosquitoes, select, and very inexpensive; not a dry-goods fight, but back to nature.

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All Illinois physicians who practise in the country should secure copies of the September *Bulletin* of the Illinois State Board of Health. This contains more information concerning the safe disposal of human excreta than we have ever seen before crowded into so small a compass. There are simple directions for the construction of sanitary privies, and it tells of the dangers of house-flies, and how they can be overcome. Get a copy.

—

According to Dr. J. K. Scudder (*Eclectic Medical Journal*), there are about 75,000 members of the regular school practising in the United States; 9000 homeopaths; 7500 eclectics; 4000 osteopaths; and 4500 unclassified. Dr. Scudder says that, while the various directories give the names of 120,000 to 130,000 physicians, they contain the names of various men who are deceased, removals, duplicates, and even "undertakers, embalmers, veterinary surgeons, *et al.*"

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The Radium Institute opened in London, on August 14, owes its existence to the generosity of Sir Ernest Cassel and Lord Iveagh. The principal asset of this institution is one Gram of radium, which is valued at $75,000. The institution also has a balance which will weigh 1-1000 of a milligram, and a microtome that will cut twenty-five thousand slides to the inch. Excellent results are being claimed from the use of radium for the treatment of cancer and other diseases.

—

Dr. E. S. McKee, of Cincinnati, Ohio, is now an honorary member of the Amalgamated Union of Joke Blacksmiths. *The Cincinnati Post* recently awarded him a prize for the best mother-in-law joke, the award being decided by a vote of its readers. Here is the joke for which he won the prize:

"I see that you and your brother do not speak."

"No, we went boating with our wives and their mothers and we upset the boat. Each man saved his wife and the other man's mother-in-law."

—

The greatest living philanthropist is a doctor—Dr. D. K. Pearsons, who resides at Hinsdale, near Chicago, he having practically completed the distribution of his entire fortune amounting to about $7,000,000. Needless to say, Dr. Pearsons did not accumulate this fortune in the practice of medicine, which he abandoned many years ago. He has given his money mainly to small colleges, and now that it is all gone, he has presented even his elegant home to the little suburban town in which he lives, to be used as a library and museum, while he is spending the last few years of his life—he is now ninety-one—in a local sanitarium.

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At a recent meeting of the British Medical Society, Dr. Byron Brumwell asserted that the practice of medicine is replete with mistakes. Mistakes of incapacity; mistakes of inexperience; mistakes in the most ordinary observations; of gross ignorance; of inexcusable carelessness; of omission and commission; "mistakes which either to the practitioner who makes them, to the patient whose case is wrongly diagnosed, or to the public at large, are of the greatest importance, since they may entail very disastrous consequences." Confessions of this kind are not an evidence of weakness, but of strength. Just as soon as we begin to realize that we do not always do entirely right, just so soon are we likely to increase our efforts to do better work. Many of the mistakes referred to in Dr. Brumwell's address were due to carelessness in diagnosis. Thanks to the scientific laboratory it is now possible to eliminate most of these errors, and with more accuracy in diagnosis and more accuracy in medication, better success is sure to follow our efforts.

We have but recently been informed of the demise, on August 2, of Dr. J. B. Atchison of Lewistown, Montana. The Doctor was one of our old-time Montana friends, for many years a reader of this journal, and a devoted adherent to the idea of active-principle therapy. At the time of his death he was nearly sixty-nine years of age. He was graduated from Jefferson Medical College, began practice in St. Joseph, Missouri, removed to St. Louis and later to Helena, Montana, where he began work in 1878. He continued in practice in that city until 1899, when he removed to Lewistown. During his residence in Helena, we are informed, he enjoyed the largest clientele ever attained by any one physician in the State of Montana. He was a member of the Montana State Medical Society, the American Medical Association, and of other societies, and was formerly president of the Montana State Board of Medical Examiners. Dr. Atchison closely resembled in appearance the picture of the physician attending the sick child, in the famous painting, "A Ray of Hope," which adorns the office of most physicians. Those who know and love this picture will appreciate the statement made by the Rev. D. B. Price at Dr. Atchison's funeral:

"The most noble trait of the deceased was his appreciation and love of children. He saw in every child that which provoked a smile and a kind word."

State-Board Examination Department

Edited by R. G. SCHROTH, M. D., 546 Garfield Ave., Chicago, Ill.

ANY QUESTIONS YOU WANT ANSWERED

[We are sure that every reader of CLINICAL MEDICINE finds this department helpful—especially if he be one of the many contemplating new locations in other states or if he is preparing to face a state board for the first time in the near future.

While it is already of intense interest, we think it may be possible to make the department even more helpful through a little cooperation on your part. When you are going through these questions or making plans for your transplantation to the new field, I am sure you think of many things you would like to know. You may desire information concerning reciprocity, concerning age allowances for old practitioners, concerning "recognized" medical colleges, concerning dates and places of examinations, concerning "catch" questions and how to answer them, and any number of things about the character of examinations (and the questions themselves) in different states.

Write to Dr. Schroth and tell him your troubles. Incidentally, don't forget to tell him how much you enjoy his course—and *don't*, for goodness' sake, forget to put in stamps enough to guarantee a reply.]

PRACTICE OF MEDICINE

1. Give diagnostic symptoms of hydrothorax and of pyothorax, and differentiate the two conditions.

Hydrothorax is more chronic in character and more general in location, and it may be associated with syphilis. The symptoms are less severe than in pyothorax. The latter condition is more acute in character and more localized, and it is associated with pus condition elsewhere or with tuberculosis. The symptoms are more severe and there is high fever, leukocytosis, indican in urine, general fever, and it has more or less of a characteristic onset.

2. How discriminate organic from functional murmurs of the heart?

Organic murmurs: (1) Constant and regular in time; (2) always heard at the same place.

Functional murmurs: (1) Not constant, and are irregular in time and occurrence; (2) not always heard in the same place; (3) always heard at base of heart; (4) found in anemic patients; (5) found in nervous patients.

3. State pathologic significance of rigid recti muscles of the abdomen.

This condition indicates peritonitis or inflammation in center of abdomen.

4. Differentiate between chronic parenchymatous nephritis and chronic interstitial nephritis.

Chronic parenchymatous nephritis: Epistaxis and cerebral hemorrhages rare. Occurs most frequently before age of 40. Blood-corpuscles and connective-tissue shreds more frequently found in urine. Casts more numerous and in greater variety; waxy, granular, fatty, and hyaline casts. Epithelia from kidney and pus-corpuscles more frequent and numerous.

Urates and phosphates predominate; oxalates rare. Albuminous retinitis rare. Gangrenous erysipelas and phlegmonous swellings common; dyspepsia and anemia. Visceral complications not uncommon. Arterial atheroma rare.

Chronic interstitial nephritis: Epistaxis and cerebral hemorrhage frequent. Occurs most frequently after 40. Development more gradual; health less impaired; duration longer. Casts rare, hyaline kind predominating. Kidney epithelia and pus-corpuscles scanty or absent. Calcium oxalate almost always occurs. Albuminous retinitis common. Visceral complications rare. Atheroma common.

5. What is gastroptosis, and what is gastrectasis?

Gastroptosis is the falling, or dropping, of the stomach. Gastrectasis designates the condition of a much enlarged stomach; a dilated stomach.

6. Differentiate acute synovitis and acute articular rheumatism.

Acute articular rheumatism is characterized by pain, heat, redness, and swelling in the joints, moderate fever, acid sweats, and a constant tendency to inflammation of the serous membranes of the heart. It affects progressively joint after joint. Synovitis is confined more generally to one or two joints. It is an inflammation of the synovial membrane; is usually very painful; the swelling fluctuates, and is due to effusion within the synovial sac. The condition is due to septic poisoning, tubercle bacilli, lues, besides some other causes.

OPHTHALMOLOGY

1. Describe in detail how you would proceed to remove a small foreign body imbedded in the cornea.

The eye is cocainized; the patient is seated facing a good light, the surgeon standing behind and supporting the head; the lids are separated and the eyeball is steadied by the fingers of the left hand, the index-finger is applied to the upper lid, and the middle finger to the lower lid; the two fingers being separated while at the same time gently pressing backward. The instrument used is either the blunt spud, the gouge or the foreign-body needle. When the foreign body is of iron or steel the magnet should be used.

2. Define mydriasis; myosis. Name some drug which produces each condition. What is the Argyll-Robertson pupil? In what diseased condition is it found?

Mydriasis is the extreme, or abnormal, dilatation of the pupil. (Atropine, homatropine.) Myasis is excessive contraction of the pupil (Morphine, physostigmine.) The Argyll-Robertson pupil is one that reacts to distance but not to light. Found in locomotor ataxia.

OTOLOGY

1. How do you distinguish whether deafness is due to nerve lesions or aural lesions?

If the ticking of a watch or the vibrations of a tuning fork are heard only faintly or not at all when held at varying distances from the ear (aerial conduction), but become distinctly audible when the watch or the handle of the fork is placed in contact with the skull or mastoid process (bone conduction), the deafness is of the ordinary variety and due to aural disease. If, on the other hand, the sounds are heard indistinctly or not at all, both in contact and at a distance, the deafness is due to some lesion of the nerve or its connections. In the first case, the nerve is normal and can appreciate vibrations brought by the bone, while, through some fault in the mechanism, aerial vibrations are not transmitted to the nerve-endings. In the second case, the nerve is at fault and cannot appreciate vibrations, no matter how well they may be conducted.

PRACTICE OF MEDICINE

1. What are the remote effects of syphilis of the nervous system?

Locomotor ataxia, hemiplegia, paraplegia, monoplegia, arteriosclerosis, atheroma, interstitial nephritis, cerebral gumma, dementia paralytica, infarction, fibroid thickening of capsules of organs.

2. What are the symptoms of gastric ulcer?

Pain and hematemesis are the most important symptoms. Pain comes on soon after eating; localized in epigastrium, slightly to the left of the median line and radiating to the back, increased by pressure. Tenderness above and a little to the left of the umbilicus. Hemorrhage, acute or chronic. The hemorrhage may be quite profuse or there may be oozing. The color of the blood is usually bright red.

Give the symptoms of typhoid fever in the first, second, third and fourth weeks, and treatment of the same?

[The answer is omitted because it is necessarily so voluminous.—Ed.]

4. What are the symptoms of exophthalmic goiter and what are some of the measures employed in its treatment?

Prominent symptoms are dilatation of blood-vessels and frequently hypertrophy of the glandular tissue. The thyroid gland is enlarged and pulsates. There may be tachycardia, exophthalmos, spasm of the upper eyelid and widening of the fissure, twitching movements of the eyeballs, lagging of upper lid during downward rotation, tremors of the hands, besides general vasomotor disturbances, such as flashes of heat or serous diarrhea. Treatment is symptomatic and palliative. Rest and quiet; ice-bag to precordia; hydrotherapy; thyroid-, thymus-, and suprarenal-gland preparations, antithyroidine, and Beebe's serum may be used to good advantage. Excision of a part of the gland may be indicated in some instances.

5. Describe the symptoms of a case of chronic lead poisoning, and outline a method of treatment of this condition.

The patient is anemic; face is sallow or yellowish; there is a wasting of muscles; abdomen is rigid and retracted; a blue line is seen on border of the gums; there are present dyspepsia, a metallic taste in the mouth, coated tongue, fetid breath, and continued constipation. Wrist-drop and foot-drop, caused by paralysis of the extensor muscles and pains in the joints are among the complaints. Arteriosclerosis and interstitial nephritis may be present, as also cephalagia, convulsions, delirium, coma, and blindness from optic atrophy. Treatment: Iodides and opium are useful The iodides form soluble double salts with the lead in the tissues and thus aid in its elimination. Morphine may relax the spasm of the bowel, relieving intestinal pa ins and the constipation.

6. What are the early manifestations of pulmonary tuberculosis?

Early symptoms: Progressive muscular weakness, languor and lassitude, emaciation, loss of weight, fatigue on walking, climbing stairs or other exercise, slight temperature, loss of appetite, diminished expansive capacity of lungs, mucous râles

7. What are biliary calculi, their cause, and the treatment?

Gallstones are abnormal concretions occurring within the gall-duct or its passages and are composed, generally, of a nucleus of cholesterin, pigment or other substances surrounded by concentric layers of deposits of inorganic salts. They are insoluble in water, partly soluble in ether, chloroform, and alcohol. Generally they are friable, vary as to color, and consist of bile-acids, pigments, cholesterin, mucus, epithelium, fats, and calcium carbonate. The treatment in chronic cases is surgical, as a rule.

8. Describe the diagnostic significance of hematuria? Give etiologic factors. How would you differentiate as to whether bladder or kidneys are affected.?

Hematuria is diagnostic of disease of the kidneys, bladder or urethra. May be caused by traumatism or renal calculi. If the kidneys are affected, blood is intimately mixed with the urine, which is of a reddish-brown color and contains casts and renal epithelium. The red cells, having lost their hemoglobin appear yellow and are found singly. Hemorrhage from the bladder is more copious, blood is not intimately mixed with the urine, which, upon standing, shows fibrin. Micturition frequently is attended with pain. In lesions of the bladder (neck), only the last few drops of urine voided are bloody.

9. Explain the diagnostic significance of the knee-jerk.

Its presence proves the integrity of the reflex motor and sensory paths and is present in about 95 percent of normal individuals. It is a deep reflex, and its absence may prove that a disturbance exists in the spinal cord. Paths: Afferent, posterior root, fourth lumbar nerve. Efferent, fourth and fifth lumbar nerve.

10. Define leukemia, Addison's disease, myxedema, bradycardia, uremia.

Leukemia; a disease with great increase in leukocytes, enlargement and proliferation of lymphoid tissue of the spleen, lymphatic glands, and bone-marrow. The disease is accompanied by progressive anemia, internal hemorrhages, and profound exhaustion.

Addison's disease: A disease due to tuberculosis or degeneration of the suprarenal glands. Usually ends fatally. Characterized by a bronze-like discoloration of the skin, severe prostration, and progressive anemia.

Myxedema: a disease characterized by a mucoid infiltration into subcutaneous tissues evidenced by general dropsy-like swelling, especially of the face and hands. The swelling is hard and puffy; does not pit. Associated with atrophy of the thyroid gland and apparently is due to an excess of mucin in the system. Dulness of mental faculties, slow movements, unsteadiness of speech and gait are symptoms.

Brachycardia: excessive slowness of the heart-beat.

Uremia: the presence of urinary constituents in the blood, causing toxic conditions. Characterized by nausea, vomiting, headache, dim vision, coma or convulsions, and the breath and skin emanations are urinous in odor. Due to absorption of toxins which should have been eliminated by the kidneys.

JUST AMONG FRIENDS

A Department of Good Medicine and Good Cheer
for the Wayfaring Doctor

Conducted by GEORGE F. BUTLER, A. M., M. D.

THE blood, especially as regards its cells, constantly undergoes changes in its constitution. The red cells, particularly, undergo a phase of altruistic development whereby, like the embryonic tissues, they surrender their reproductive powers for the benefit of the nutrition of the organism. Arrest of development at a certain point, therefore, means a degeneracy whereby the old blood-cells gain, like a cancer, at the expense of the organism as a whole. It is this condition that essentially constitutes what is called pernicious anemia. The red blood-cell in this disease has the embryonic potentialities of the cell in cancer. The factors underlying this arrested cell development of the blood imply more elements than the simple incapacity to take up iron and act as a carrier of oxygen.

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The autotoxemia and constipation which constitute the great danger of pernicious anemia are clearly the products of more than the suboxidation due to the imperfect oxygen-carrying powers of the red blood-cells. There is, as any analysis of these cases will show, a toxemic element precedent to the pernicious anemia, which either arrests completely the proper development of the blood-cell, or which disappears, having produced merely temporary effects that disappear with it, as in the many cases of cures of alleged pernicious anemia resultant upon ameboid dysentery, malaria, syphilis, scurvy, diabetes and nephritis, and as exceptionally reported after yellow-fever, acute hepatic atrophy, cholera, and so forth. Here the primitive toxemia is the serious factor, not the resultant arrest of blood-cell development.

The blood-cells contain albuminous matter, as well as hemoglobin and fat. The supply of these, either directly or indirectly, through healthy nutrition, is absolutely necessary. The proper distribution of these substances, in relation to other elements, is likewise needed. The conditions leading to the removal of spanemia are best produced by the employment of alteratives, which improve the nutrition of the body without exerting any very perceptible action on its individual organs. Healthy nutrition depends upon a proper supply of oxygen and nutriment to each tissue and organ in the body, on the proper amount and kind of tissue-change in the various cells, and on the complete removal of waste. The proper supply of oxygen and of nutriment to the body generally will depend upon the state of the assimilatory and digestive organs. This necessary supply of oxygen to the tissues, as well as removal of waste from them, will depend upon the circulation, and the removal of waste from the body generally will depend upon the condition of the lungs, bowels, skin, and kidneys.

Arsenic has a very decided action upon tissue change and it markedly affects the glandular, nervous, respiratory, and cutaneous system. There is no better reconstructive tonic than the arsenates of iron, quinine, and strychnine—a combination that is invaluable in numerous conditions of debility, convalescence, anemia, chlorosis, and faulty metabolism.

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Another excellent tonic and alterative is copper. Copper is considered to be a violent poison, yet, except so far as its toxic effects as a foreign body in the eye are concerned, this repute is decidedly undeserved.

Kiernan has called attention to the fact that, among alchemic physicians, copper enjoyed a great reputation for what were later called "nervine-alterative" qualities, and it was used in epilepsy, chorea, and insanity, as Burton's "Anatomy of Melancholy" gives evidence. Its supposititious virtues led Paracelsus to make it the basis of one of his metallic tinctures. From him Rademacher took the therapeutic indications, and his tincture of the acetate of copper is employed by the eclectics today. That the Paracelsian use of copper was never completely abandoned by regular physicians is apparent from the perusal of the two first American Dispensatories, that of John Redman Coxe (1810) and the one of James Thacher (1812). In both of these works copper is recommended as an alterative tonic useful in epilepsy, chorea, and other spasmodic conditions, especially those connected with debility. Later therapeutists sustain this old belief.

According to Philips, J. V. Shoemaker, Biddle, Hare, Lauder Brunton, Potter, Culbreth, Foster, and others, the drug, in small doses, stimulates both the heart and the capillary circulation, and is a general nerve tonic. In the eighth and ninth decades of the nineteenth century copper assumed a new phase in periodic medical literature. Luton and Ligeois showed that copper was of value in chlorosis, anemia, cachectic states, and as a nervine alterative.

Some twelve or fifteen years ago, A. F. A. Price found that, while slow in action on the secondary symptoms of syphilis, copper prevented the development of mucous patches and throat symptoms. The first evidence of copper saturation of the system is stated to be a voracious appetite, followed by giddiness, vertigo, prostration, and other symptoms characteristic of occupational copper poisoning. As with other alteratives, Price had the best results from small doses frequently repeated. In cachectic states, 1-1000 grain of copper sulphate once daily had proved, in his hands, of marked value. Later, he confirmed and extended these results, showing the value of establishing copper tolerance in the pre-parasyphilitic stage.

As to the preparation to be employed, Redman Coxe, Thacher, as also Price, while finding copper sulphate of value, all agree that it has at times unexpected dangerous untoward effects when the point of saturation is reached. These untoward effects, through the influence of the drug on the vascular system, often take the direction of cardiac neuralgias and pseudo anginas.

The double salts of copper in small doses exert a cardiac action similar to that of digitalin, strophanthin, helleborin, etc. Hare prefers copper arsenite. I myself have found that under its use digestion and nutrition improve. It is superior to Fowler's solution in chorea and similar neuroses. Luton and Liegeois prefer a pill containing 1-6 grain of neutral copper acetate and 5-8 grain of crystalline sodium phosphate. For hypodermic use they employ a freshly made solution of copper phosphate, 1 part dissolved in 2 1-2 parts each of water and glycerin. The tincture of copper of the eclectics, which is the old Paracelsian tincture robbed of its crudities, has been employed in chlorosis, syphilis, chorea, epilepsy, neuralgia, and nervous adynamic states, in doses of 3 to 6 minims, frequently repeated, until the evidences of saturation already described appear.

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The therapeutic indications for copper, as assumed by Rademacher, are a grayish complexion, sunken features, small, soft, wiry pulse, light-colored, very acid urine, and early nerve symptoms, hallucinations, convulsions, delirium, etc. All of these symptoms are indications of what the older clinicians called nervous adynamia, a precursory suboxidation toxemic stage of neurasthenia.

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It is doubtful whether there could be compounded any better tonic-alterative intestinal antiseptic than the sulphocarbolate of copper. The copper, in itself, is a powerful antiseptic, and it acts as a stimulant of the functions of the gastrointestinal glands. In cases of autotoxemia, intestinal or otherwise, the alimentary canal should be cleared by calomel, podophyllin and laxative salines, to be followed

by phenol-free sulphocarbolates and copper arsenite, or, better, copper sulphocarbolate.

By this treatment the fetidity of the stools would be overcome, the secretory function restored, and the nausea, pain, diarrhea and other symptoms of gastrointestinal fermentation and autotoxemia removed. During convalescence the arsenates should be employed.

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In toxemic conditions, like secondary malarious manifestations, with the resultant pallor, copper and arsenic are of decided value. Cases in which the periodic tendency has disappeared improve decidedly under copper and arsenic, when quinine and iron alone are useless. The influence of arsenic is very marked on chronic rheumatism and socalled rheumatic gout, neuralgias of various sorts, in tic and hemicrania, as well as in angina pectoris, chorea, epilepsy, and asthma. In certain of the gouty forms of bronchitis, at the onset of phthisis, in imperfectly cleared-up pneumonic lung consolidation, arsenic acts, sometimes, with remarkable efficiency.

In the effects of arsenic and copper just detailed are to be seen the ideal action of the alterative, an action opposed in certain particulars to that of the restorative, to which category iron belongs.

Restoratives not causing tissue change must be placed in a condition for assimilation before the system can receive and apply them. If this does not occur, they act simply as poisons by overaccumulation, whence the many objectionable untoward effects which occur from iron in cases of spanemia, where this restorative agent is not assimilated. In chlorosis, where iron notoriously fails in many instances, copper and arsenic very frequently produce marked and decided improvement, not only as regards the red blood-cell, but also in general nervous vitality.

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The fact that arsenic acts as an excellent respiratory stimulant and tonic in mountain climbing, makes it peculiarly suitable in cases like chlorosis, where general air-hunger is marked, as in nephritic and diaLetic cases. Indeed, in most spanemic states tissue air-hunger is a very unpleasant feature, sometimes underlying the condition of local exhaustion, and of local pain which provokes local exhaustion.

The fact that the organic irons succeed better than the inorganic is an indication that assimilation is necessary to the influence of a restorative, while an alterative of necessity provokes its own assimilation. Arsenic and copper have been found in small quantities in the thyroid gland, a fact that would indicate their natural presence as an alterative in the system.

The influence of both drugs on the liver, whose double functions are so necessary to the tissue changes of the system, shows that both drugs play a part in assisting assimilation and at the same time in destroying waste products. It must be remembered, as Minot, the embryologist, has shown, that the liver has two functions, one of which is a blood-making, and the other a poison-destroying one. The stimulation of both these functions is necessary to an alterative under the principles laid down.

It is obvious, therefore, that the liver should be functionating properly, the intestinal canal, kept free of toxic material, and free elimination maintained through the various channels, in order to obtain the best results from any tonic treatment.

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Prudes form a branch of the great human family, of whom this same family seldom has occasion to feel either particularly proud or greatly ashamed. They do no good that they are responsible for. They live; lead moral lives; are approved of as examples of good children; finally, are respected by other prudes and the owners of other prudes.

Should you become interested in one of the boys of this species, you will discover that he has been held aloof from other boys; was sent to a private school, a fond mother leading him there and calling for him; was ushered into business life by his mother, who saw to it that he was given a desk job and insisted that he must always live at the parental home.

And so he has always remained a real nice boy, who talks of "lovely times" and "horrid times." But he is a mellow, pink-fingered, immaculate, who never "is,"

but "is being"; who never "has," but "has been"; who is an absolutely passive existence. He hasn't a bad habit, because he doesn't know what a bad habit is.

But at times, when his mother carelessly drops the leading string, he is made to look more like a real boy: his eyes are punched, his nose is tweaked, his ears are pulled, he is persuaded to roll in the dirt in order to take the "spanginess" out of his clothes; all of which makes him realize how dearly he loves his mother and causes him to remind her that she has dropped the precious string. He is unable to resist the attack of his tormentors, for he has been taught not to resist. Tears have been schooled to do the work of laughter. His muscles are flabby and his wind is short. He is a girl-boy, a mother's boy. He is a model boy without a bad habit, because his mother has made him an automatic, walking, talking being. He deserves no credit. He gets none.

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His opposite is quite as unsatisfactory to the world, and is the result of an equally disastrous thoughtlessness in those who are supposed to be his care-takers.

He is the boy who is allowed the loose rein of freedom, who is allowed to shift for himself; is ignorant of the meaning of the word restraint; knows no guiding hand; hears no loving word; seeks no advice; gets none. He knows the right, but he prefers the wrong. His liberty brings the animal to the surface and he acts the brute in preference to the man. In poverty, he is the ragamuffin, becoming the tough, the sot. In better circumstances, he is the bad boy, becoming the sport.

And the peculiarities of both of these may generally be traced to the wrong use of the right verb. "You shall not" has been used where "you should not" would have made thinking, reasoning boys of them. They have been commanded, not advised. In the one case the one commanded is robbed of all power to question; in the other, he cares not jot nor tittle.

Between these two grow the boys who make the men who make the world. They are the ones who have been taught the difference between right and wrong; who have had a gentle and loving but firm hand of restraint laid upon them, to guide them harshly but well; who had the right lesson of self dependence, with copious notes on standing up for their own rights.

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Grit, with a little vinegar and some ginger, goes a long way toward helping to make a boy presentable in this world of ours. If he has them, don't attempt to take them from him. If he lacks them, do your part to put them into him. Teach him to realize before he is out of his petticoats that whining is unprofitable. Toady to his bump of affection, but teach him that the puppy stage should be outgrown. Impress upon him that, when he gets a few more years and inches, he will be a man to do a man's work; that pluck, perseverance, and push are trouble-shakers; that sound wind, good courage, and a rugged constitution are boon-companions to a healthy brain. Point out to him the right way, and teach him that a part of the task of going that way must fall upon himself. Teach him that to respect himself is to be respected.

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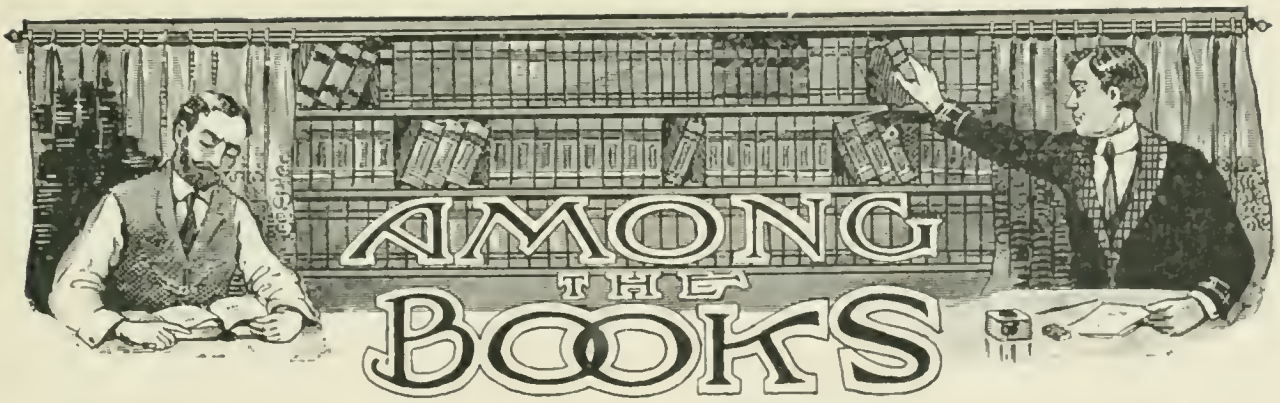
If he has a desire to smoke, advise him not to. If he is determined to smoke, make the best of it. Open the whole house to him, his pipes, cigars and all. The house is his as much as it is yours, and it is a better place for him than behind the barn. If he wishes to play cards, teach him that card playing is not necessarily gambling, and that when he is playing whist and euchre, he is doing nothing wrong. Should he desire to dance, avoid the common canard of the many anxious ones. Teach him, instead, that on the dance-hall floor there are girls of absolute respectability. Should drinking have an inclination to woo and wed him, settle yourself right down to have a vigorous campaign on any lines you choose. Break him!

Bear in mind that the lessons remembered the longest by him are those taught him by *you*. Be frank to him, would you have him frank; be honest, would you have him honest; be firm, would you have him firm. Be master, not man.



DIEULAFOY'S "TEXT-BOOK OF MEDICINE"

A Textbook of Medicine. By G. Dieulafoy, Professor of Clinical Medicine at the Faculté de Médecine de Paris. Authorized English translation from the fifteenth edition, by V. E. Collins, M. D., and J. A. Liebmann, Ph. D. New York: D. Appleton & Co. 1911. Price $12.00.

Dieulafoy's Textbook is a work of two volumes and has been written with a special consideration of the needs of the general practitioner.

Volume I is devoted to diseases of the respiratory system, the circulatory system, and the digestive system. In Part I the author has given a complete picture of the tuberculous process as it affects the various organs, embracing the anatomic, clinical, diagnostic, prognostic, therapeutic, and prophylactic considerations. The perfectly systematic and interesting way with which he writes, not only of tuberculosis, but of other diseases as well, makes the chapters nothing less than a pleasure to peruse. Tuberculin therapy and other up-to-date measures for combating this disease are concisely presented. Part III of the first volume is devoted to diseases of the digestive system—511 pages in all—and every page is treated in a most satisfactory manner. The part devoted to diseases of the intestine shows painstaking preparation, the discussion of appendicitis being most exhaustive, embracing 42 pages. Differing from the writings of the average internist, Dieulafoy is most pronounced in his opinion of the value of surgical over medical treatment of appendicitis, as, when he truly says, and with emphasis:

"*There is no medical treatment for appendicitis.* Medical treatment simply causes loss of valuable time. It is obvious that the patient can be relieved by injections of morphia, application of ice-bags to the affected region, and other soothing measures; but do not let us be mistaken as to the efficacy of these means. Too often they lead us to believe in cure, when they only mask the symptoms. In view of this fictitious improvement, we speak of typhlitis or appendicular colic, and prophesy recovery; but the patient dies for want of proper surgical intervention. Since this focus (appendicular) is the cause of the disease and of death, would not early surgical intervention be better than ice, purgatives or opium?"

Fifteen pages are devoted to diseases of the pancreas. The author evidently has carefully reviewed the recent and abundant literature, by virtue of which, together with his clinical experience, he is enabled to clear up many obscure points in diseases of this organ. The pathology of the pancreas has been much simplified, but it is to be regretted that the symptomatology is still quite obscure and the treatment correspondingly unsatisfactory. The portions treating on hemorrhage of the pancreas, on pancreatic colic, relation between pancreatitis and gallstones (pancreaticobiliary syndrome), cytosteatonecrosis, and pancreaticoperitoneal hemorrhage have received a most thorough consideration. The whole subject, indeed, represents the most careful work on the part of the author, making it possible for the interested reader to acquire a complete knowledge of the diseases of the pancreas.

The second volume is equally interesting and exhaustive. It is devoted to diseases of the urinary system, the nervous system, general and infectious diseases, diseases of the spleen, pathology of the blood, rheu-

matic and dystrophic disease, parasitic infections, diseases affecting the locomotor system, venereal diseases, the intoxications and supplementary chapters on therapeutics, devoted to the treatment of syphilis by mercury and arsenical preparations, and three pages given to formulas for and injection of artificial serum.

The section on diseases of the nervous system embraces 352 pages. This portion of Volume II will bear very careful reading and cannot fail to be of more than usual value. Somewhat of the great difficulty that has long hung over certain aspects of diagnosis of diseases of the nervous system is largely removed by the clear and terse treatment they receive at the hands of the author.

Indeed Dieulafoy's "Textbook of Medicine" elucidates the complex problems of detecting disease in a most complete, profound, and clear manner. One is led, in the most pleasing language, from step to step in diagnosis until the hidden conditions are revealed and disease is compelled to yield up its secrets and lay bare the morbid changes it has caused. The therapeutic sections, while perhaps sufficiently complete for the experienced practitioner, show less painstaking consideration than is given to the other portions of the work.

The graphic method is made free use of, the volumes being profusely illustrated with well-chosen cuts. Each chapter is followed by several case-reports illustrative of the subject under discussion, thus greatly enhancing the value of the work. The translation is accurate and fluent—the style of the text being really delightful, easy, and vivid.

Altogether, the whole work shows a painstaking preparation to the end of producing a most useful up-to-date and complete textbook of medicine.

GEO. F. BUTLER.

HOLT'S "CHILDHOOD DISEASES"

The Diseases of Infancy and Childhood. For the Use of Students and Practitioners of Medicine. By L. Emmet Holt, M. D., Sc. D., Assisted by John Howland, A. B., M. D. Sixth edition, fully revised. New York and London: D. Appleton & Co. 1911. Price, cloth, $6.00.

The present edition of Dr. Holt's well-known textbook of Pediatrics was prepared with the assistance of Dr. Howland, who will hereafter be connected with the work as joint author. The work has been thoroughly revised, many chapters being rewritten, and several new articles have been added. We are glad to announce this new edition to our readers and hope that it will gain as many new friends as did its five predecessors in their time.

CHUNDRA'S "TREATMENT"

A Treatise on Treatment. By Jogender Lal Chundra, L. M. S., Calcutta University. Published by the author at 5 Gopee Kristo, Pauls Lane, Calcutta.

This is one of those "different" books, and it attracts attention by virtue of its unique presentation of a subject that ordinarily is dealt with in a stereotyped manner. The author evidently has been an omnivorous reader of medical literature and, in the process of assimilating knowledge, has formed ideas of his own. Thus, associated with a curiously varied collection of formulas, he presents excerpts from monographs, methods of treatment, and theories of therapeusis.

The volume unquestionably contains a great deal of useful information, but, unfortunately, the reader is compelled to read many things and select therefrom that which he considers desirable. It is to be hoped that in another edition the subject-matter will be better balanced: widely varying theories emanating from individuals of world-wide celebrity, when presented side by side and shorn of explanatory or qualifying remarks, are apt to confuse rather than help the puzzled practician. For instance, under the head of "Appendicitis" the use of opiates (and leeches) is "strongly recommended"; yet Osler and McCrea are quoted in the next paragraph as saying that "the use of opium in the treatment of appendicitis is generally discredited." Lockwood's dictum, "It is better *not* to apply leeches," appears immediately following a paragraph saying,

"Half a dozen leeches work like a charm." Such confusing "conflictions of authority" occur constantly, and one is compelled to realize that, having paid his money, he is left to take his choice of a heterogeneous mass of therapeutic material

Notwithstanding its various weak points, however, the book is well worth reading, the chapters on tropical dysentery, cholera, tuberculosis, diabetes, and syphilis being of particular interest, while, in discussing "fever," the latest theories are intelligently considered.

EBERHART'S "HIGH-FREQUENCY MANUAL"

A Working Manual of High-Frequency Currents. By Noble M. Eberhart, M. S., M. D. Chicago: New Medicine Publishing Company. 1911. Price, postpaid, $2.00.

This latest book by Dr. Eberhart is a practical handbook for the busy physician who wishes to use high-frequency currents and to learn how to do so with as little "red tape" as possible. The author does not indulge in theory, but sticks to established truths, and where facts are not yet fully explained, he presents his own solution of the problem briefly and concisely. The theoretical portion of the book, that dealing with the nature and application of high-frequency currents, occupies just one-half of the volume, while the chapters on practical high-frequency therapy take up the remainder. The author has succeeded in presenting an enormous amount of information in a small space, and his little book is certain to be of great benefit to many physicians.

VISITING LISTS

The Practitioner's Visiting List for 1912. Philadelphia and New York: Lea and Febiger. Price $1.25 net; with thumb-index, $1.50.

The Practitioner's Visiting List, which is as usual published in various styles, contains thirty-two pages of data needed by every practitioner, as well as the blank pages for recording all details of practice, both clinical and financial. The book before us shows the handsome appearance to which we are accustomed.

"THE FOURTH PHYSICIAN"

The Fourth Physician. A Christmas Story. By Montgomery Pickett. Chicago: A. C. McClurg & Co. 1911. Price $1.00.

One of the most charming and delightful Christmas stories that it has been our privilege to read for a long time. Speaking directly to physicians, and contrasting the altruistic work of the lowly practitioner with the impersonal research and study of "cases" of the scientist, who nevertheless cannot deny himself to the purely human touch when the right chord is struck, the little story, so full of human life, carries a strong and appealing message. A bright and even amusing turn is given to many passages by the quaint philosophy and the childlike faith of Uncle Hilary, the old negro servant, who has "often observed that nothing is so strong in sickness or health as a good prayer with the right proportion of effort behind it," and for whom "there is no real sympathy in the world without effort behind it."

A. M. A.'S "NEW AND NONOFFICIAL REMEDIES"

New and Nonofficial Remedies, 1911; containing descriptions of articles which have been accepted by the Council on Pharmacy and Chemistry of the American Medical Association, prior to Jan. 1, 1911. Price, paper, 25 cents; cloth, 50 cents.

This is the 1911 edition of the annual New and Nonofficial Remedies, issued by the Council on Pharmacy and Chemistry of the American Medical Association, and contains descriptions of all articles approved by the Council, up to Dec. 31, 1910. There are also descriptions of a number of unofficial nonproprietary articles which the Council deemed of value. The action, dosage, uses, and tests of identity, purity and strength of articles are given.

In the arrangement and the scope of individual descriptions, the present edition does not differ widely from the 1910 edition,

but it contains about 25 additional pages, these being required to describe the articles accepted by the Council during 1910.

Besides indicating to physicians the proprietary articles which the Council's examination has found to be honestly marketed, and containing accurate descriptions of these articles, all similar articles are arranged under group headings. Thus the physician at a glance can learn that atoxyl and soamin are practically identical articles, and that arsacetin is a closely related body. Again, the several proprietary solutions of the blood-pressure-raising principle of the suprarenal gland are listed under the general tite "epinephrin," and the manner in which the solutions differ from each other can be learned at a glance. In the same way, the medicinal foods are brought together and their relative values compared.

VISITING LISTS

The Medical Record Visiting List or Physicians' Diary for 1912. New Revised Edition. New York, William Wood and Company. Price $1.25 to $4.00 according to style.

This well-known visiting list contains, besides the usual information, a list of maximum adult doses, by mouth, of the drugs in common use, both in Apothecaries' and metric measures. Those drugs which are included in the U. S. Pharmacopeia have an asterisk. Another list gives the difference in "drops" as dropped from bottle or dropper in actual minim measure, showing that minims should always be prescribed for the sake of exactness. The diary shows the customary arrangement.

HORDER'S "CLINICAL PATHOLOGY"

Clinical Pathology in Practice. With a Short Account of Vaccine Therapy. By Thomas J. Horder, B. Sc., M. D., F. R. C. P., London and New York: Oxford Medical Publications. 1910. Price $3.00.

This is a rather novel and certainly very timely treatise on diagnosis, so far as this is aided by the laboratory worker. The book is neither a textbook on pathology nor a manual detailing the methods and technic of laboratory examinations. It discusses rather those classes of cases that will repay laboratory examination, and indicates the materials that are necessary for the purpose; it describes the methods by which these materials are obtained, and considers the interpretation that is to be put upon the results of the investigation. It is, therefore, a welcome guide for the physician, to determine when and how he should invoke the assistance of the pathologist in order to determine the exact condition of his patients.

SHERMAN'S "VACCINE THERAPY"

Vaccine Therapy in General Practice. By George H. Sherman, Detroit, Michigan. 1911. Published by the author.

This little volume, which was distributed by the author among his correspondents, contains a number of papers on the important subject of biologic treatment of infectious diseases, and will, we are informed, soon be issued in a second edition, which will then sell for one dollar.

The author has studied the subject with which he deals for many years and speaks from his wide experience. While we are fully in accord with his desire to increase the interest in the use of bacterial vaccines in everyday practice, we do not agree with him in all points, and take decided exception to his categorical statement (page 29) that vaccines are not dangerous. Vaccines have a greater possibility for harm than chloroform, morphine, strychnine, and other drugs of the kind. They are not dangerous in the hands of men who have studied their actions and the principles underlying their application, because then their administration is controlled.

Dr. Sherman's little book contains much interesting information and can be cordially recommended for study.

"INTERSTATE MEDICAL-SYMPOSIUM SERIES"

Recent Studies of Syphilis, with Special Reference to Serodiagnosis and Treatment. Second edition, revised. A reprint of articles published in *The Interstate Medical*

Journal. St. Louis: Interstate Medical Journal Company. 1911. Price $1.00.

Recent Studies of Cardiovascular Diseases. A reprint of articles published in *The Interstate Medical Journal*. St. Louis: Interstate Medical Journal Company. 1911. Price $1.00.

These two books present, each on its respective subjects, a series of papers containing an enormous amount of information on the most recent studies and investigations. The contributors to *The Interstate Medical Journal* rank among the best-known medical writers, and their papers are all of them of interest and value.

We are glad to call the attention of our readers to the medical-symposium series published by *The Interstate Medical Journal*, of which the present volumes are the first two issued, and which, we suppose, will be continued.

ABRAMS' "THE BLUES"

The Blues, or Splanchnic Neurasthenia: Causes and Cure. By Albert Abrams, A. M., M. D. (Heidelberg), F. R. M. S. Illustrated. Fourth edition, revised and enlarged. New York: E. B. Treat & Co. 1911. Price $1.50.

The important work of Abrams in establishing and elucidating the abdominal form of neurasthenia as a clinical entity, of showing the important causal relation to it of intestinal autointoxication, and of suggesting a proper and effective line of treatment is well known and acknowledged. His book, "The Blues," has become a reliable guide to many physicians in dealing with these puzzling conditions, and any new edition which promises further light on the subject must be welcomed.

TALBOT'S "DEVELOPMENTAL PATHOLOGY"

Developmental Pathology: A Study in Degenerative Evolution. By E. S. Talbot, M. D. Boston: R. G. Badger. 1911. Price, buckram, $6.00.

Teratology, in an extended sense, came into pathology very early. Rash's conception of insanity predisposition is a teratologic rather than a nosologic one.

Developmental pathology is the domain of pathology, in the Virchowan sense, of disturbance of balance which deals with departures of structures and organs from the normal along the line of fetal arrests, either in structure or else in the biochemic states underlying functions or potentialities of development, at given periods of growth. Atrophies, with or without resultant hypertrophies, and *vice versa*, are underlain by its laws. Dr. Talbot's object, tersely stated, is to show in this book:

First, that the ontogeny of man—his structures and organs—is a modified recapitulation of his phylogeny in development.

Second, that, as the vertebral phase appears early in embryogeny, an unstable nervous system, checked by parental defects, eruptive fevers, and other agencies at the periods of stress in the child, affects phylogeny and ontogeny.

Every phase of teratology in its medical relations is excellently discussed from the embryogenic, and not the freak viewpoint. This latter viewpoint curses much of the more recent discussions with needless misleading ambiguity. The views advanced forty years ago by E. C. Spitzka, in his "Somatic Etiology of Insanity," are extended to other phases of medicine than psychiatry. The work, happily, comes at a time when it is much needed. Like all of Badger's publications, it is well issued in the typographic sense.

Jas. G. Kiernan.

KOLLE'S "PLASTIC SURGERY"

Plastic and Cosmetic Surgery. By Frederick Strange Kolle, M. D. With one colored plate and 522 illustrations in the text. New York: D. Appleton & Co. 1911. Price $5.00.

This is an unusually interesting work, covering, as it does, a subject that ordinarily is rather neglected, at least in part, and left to beauty-doctors. Attention to plastic and cosmetic surgery should, we believe, offer a most grateful and remunerative field for surgeons with deft fingers and

mechanical ingenuity, because many are the objections on the part of both men and women to the features with which nature has endowed them or which disease may have left them, while plastic operations command good fees.

Dr. Kolle has treated his subject in a very attractive and complete manner and has given us much interesting information on the history of plastic surgery (which is far older than the reviewer believed) and on its present scope. The chapters on the theory and practice in particular are decidedly well written. The book is certain to be of value to the plastic surgeon, and just as valuable to the practitioner who is usually consulted first, before a surgeon's services are requested.

PRACTICAL MEDICINE SERIES, 1911

The Practical Medicine Series; Comprising 10 Volumes on the Year's Progress in Medicine and Surgery. Under the general editorial charge of Gustavus P. Head, M. D., and Charles L. Mix, A. M., M. D. Chicago: The Year Book Publishers.

Readers are reminded that, while the price of the year's set of 10 volumes is $10, each volume may be purchased separately, at a cost of from $1.50 to $2 each. The following volumes have been received by the reviewers, viz.:

General Medicine. Edited By Frank Billings, M. S., M. D., and J. H. Salisbury, A. M., M. D. Series 1911, Vol. 1. Price $1.50.

General Surgery. Edited by John B. Murphy, A. M., M. D., LL. D. Series 1911, Vol. 2. Price $2.00.

The Eye, Ear, Nose, and Throat. Edited by Casey A. Wood, C. M., M. D., D. C. L.; Albert H. Andrews, M. D., and Gustavus P. Head, M. D. Series 1911, Vol. 3. Price $1.50.

Gynecology. Edited by Emilius C. Dudley, A. M., M. D., and C. Von Bachelle, M. S., M. D. Series 1911, Vol. 4. Price $1.25.

Obstetrics. Edited by Joseph B. DeLee, A. M., M. D., with the Collaboration of Herbert M. Stowe, M. D. Series. 1911, Vol. 5. Price $1.25.

These five volumes comprise the first half of this excellent annual series, which enables the practitioner to keep himself informed on the advance in medical knowledge during the preceding year. The text of the present volumes is fully up to the standard established for this annual from the beginning, and the selection of the matter shows careful and studious work. The series is primarily intended for the general practician, but affords much of value to the specialist as well.

WALSH'S "PHYSICIAN'S HANDY LEDGER AND CALL BOOK"

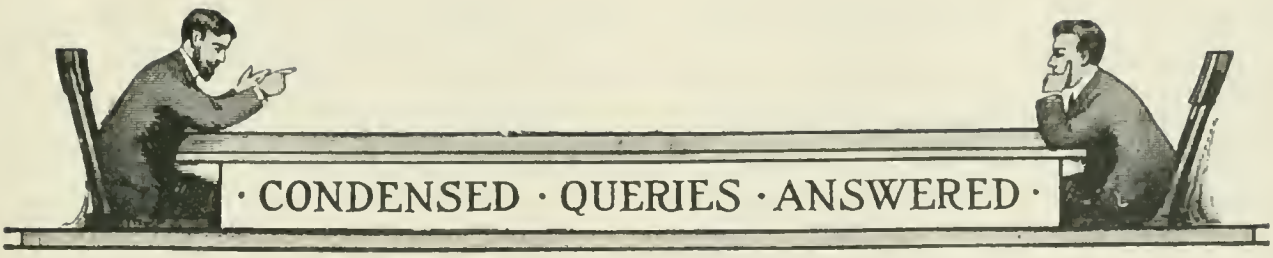
An excellent combined set of physicians' account books is provided in Walsh's Physician's Call-Book and Walsh's Physician's Handy Ledger. The first is much like the usual "visiting list"—a handsome, morocco-bound pocket-book with flap, containing blank pages for recording calls and charges, and the dose table and other emergency information ordinarily supplied in such books. This is the day-book of the system. The Handy Ledger is 7 by 10 inches and is so arranged that the record of visits made in the call-book may be transferred to it by a stroke of the pen, thus reducing the work and trouble of keeping accounts "charged" to a minimum. One page in the ledger gives ample room for recording a patient's account for a year or more.

The price of the Call-Book is $1.50; of the Ledger, for 600 patients, $3.50 and for 1200 patients, $7.00. Address Ralph Walsh, M. D., 1807 H. St., Washington, D. C.

NUNN'S "MATERIA MEDICA"

Materia Medica Step by Step. By Arthur W. Nunn, F. C. S. Philadelphia: P. Blakiston's Son & Co. 1911. Price $1.40 net.

This little volume is not intended as a work of reference, but rather as an introduction into the study of materia medica. While really for the beginner, it will be found most interesting and useful to the physician.



PLEASE NOTE

While the editors make replies to these queries as they are able, they are very far from wishing to monopolize the stage and would be pleased to hear from any reader who can furnish further and better information. Moreover, we would urge those seeking advice to report the results, whether good or bad. In all cases please give the number of the query when writing anything concerning it. Positively no attention paid to anonymous letters.

ANSWER TO QUERY

Answer to Query 5734.—"Electricity in Goitre." In your answer you recommend solution of potassium iodide locally by cataphoresis. In regard to this, allow me to repeat what years ago I read somewhere and which I have faithfully observed since then, in treating goiter by the galvanic current. It is this: "Before attempting to treat a goiter by galvanism, no matter if there is exophthalmos or not, examine the heart carefully, and if even the slightest indication of a lesion exists, never use the negative pole."

It is this precaution I wish to mention, although I do not exactly know what might be the consequences of not heeding it.

Brother Cosmas, O. S. B.

Conception, Mo.

QUERIES

Query 5755.—"Corneal Ulcers." A. F., Illinois, has under treatment a case of "corneal ulcer" in a patient forty years of age and who has been under observation and treatment for now seven years. The ulcers appear first on one eye then the other, at various times, probably six or seven times during the year; in summer or winter, whether the patient has a bad cold or when he is, apparently, perfectly well. They are sometimes deep and at time superficial, but always incapacitate the eye for several days, being accompanied by much pain, lacrimation, photophobia, and so on. This man has, on several occasions, been sent to oculists, for correction of errors of refraction. He has been on "special courses of treatment" for long periods of time, i. e. he has taken potassium iodide, mercury, and sodium cacodylate. There is absolutely no history or manifestation of a luetic taint. His vision, corrected by lenses, is all right. He has had but one sickness besides measles; that was typhoid fever at the age of twelve years. His general physical condition is practically perfect. He is naturally very much discouraged at the outlook, since there seems to be no let-up to the appearance of the ulcers.

The doctor asks whether we or any of the "family" can suggest measures to prevent the recurrence or to eliminate the cause of this distressing condition.

You do not describe the local conditions very fully. Neither do you state whether the invading bacteria have been recognized. Among the commoner causes of corneal ulcer may be mentioned purulent conjunctivitis, blennorrhea of the lacrimal glands (you may be dealing with a constant infection here), a lowered state of the general system, autoinfection (from the alimentary canal especially), and disturbances in the nerve supply of the cornea. Photophobia, lacrimation, and blepharospasm are observed in practically every case. The pain may be severe and affect not only the eye but the brow, temple and side of the head. In unfavorable cases pus or fibrin collects

in the lower part of the anterior chamber (hypopyon).

There is a very great difference in the behavior and tractability of corneal ulcers. In some instances they are uncontrollable and tend to go from bad to worse in spite of the best efforts of the physician. Then, again, they respond promptly to treatment. The usual classification of "infected" and "simple" ulcers can not be considered rational, for even the mildest ulcer is infected in the sense that some bacteria are present and play an important part in the production of the lesion.

The extent and malignancy of the ulcer depends to a great extent upon the nature of the bacteria, and to some degree upon the character of the biologic opposition—feeble or pronounced—which they encounter in their invasion. A patient whose general vitality is lowered offers less resistance than a robust individual to even the less virulent bacteria, such as staphylococcus pyogenes aureus, and when such an individual suffers from a streptococcus, pneumococcus or Klebs-Loeffler bacillus infection, the ulcers are apt to exhibit great malignancy and to tax one's therapeutic capacity.

You will readily see that in this case it is essential to increase resistance, to correct any disorder of the body-chemistry, and to familiarize yourself with the nature of the bacteria invading the cornea. Send a smear of discharge from the ulcer and also a blood smear, together with a specimen of urine (4 ounces from the total 24-hour output, stating that amount), to our pathologist for examination. The patient is most likely acidemic. Is there any discharge from the lacrimal duct, or does a nasal catarrh coexist?

We should be inclined to give this patient, once a week, a calomel-podophyllin purge, i. e., calomel gr. 1-6, podophyllin gr. 1-6, bilein gr. 1-12, every half hour for four doses at night, and a saline draught the next morning. By thus emptying the alimentary canal, you will do much toward ridding the system of intestinal putrefactive bacteria and their toxins. Give the sulphocarbolates or calcium sulphocarbolate every three hours; the arsenates (preferably with nuclein) after meals, and echinacea, 1 grain three times a day. Keep the skin thoroughly active and the nasal and buccal cavities clean; and should an ulcer appear, push quinine (preferably in the form of the hydroferrocyanide), and give, hypodermically, 30 minims of nuclein solution daily for ten days.

Locally, atropine, or boric acid, solution, or the yellow oxide of mercury ointment, will prove beneficial. Or you may use a solution containing 1 grain of atropine and 10 grains of boric acid to the ounce. Follow with the application of yellow oxide of mercury ointment, 1 grain to 1 dram of vaseline. If pain, photophobia, and lacrimation are complained of (and are excessive), employ a strong solution of atropine (4 grains to the ounce). Occasionally atropine does not act favorably, and here holocain, 2 grains to the ounce, proves the better preparation, markedly relieving pain and promoting healing of the ulcer.

Foul ulcers which refuse to heal may be controlled by an application of pure carbolic acid. First cocainize the eye; then, with a finely pointed wooden toothpick about the tip of which a few fibers of absorbent cotton have been wound, apply, with a rubbing motion, the phenol to the affected area. Be quite sure that an excess of the acid is not taken up. After the phenol has been in contact with the ulcer for a few moments, apply pure alcohol in precisely the same way, after which wash the eye with normal salt solution or a saturated solution of boric acid. Should the ulcer present a foul appearance after twenty-four hours, repeat the application. The lids must, of course, be held open during this procedure, and each step must be taken with extreme care. We trust you will report your further experience.

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QUERY 5756.—"Varicose Veins of the Leg. Phleboliths." F. B. W., California, requests information regarding the operation for varicose veins. His patient is a young lady about twenty years of age; somewhat neurotic; inclined to faint and to emotional spells. She has slight lateral spinal curvature. Claims not to be constipated. The trouble affects the veins running from the buttocks to the knee, one

being the vein from the great saphenous. Our correspondent inquires whether there is any better operation than Phelp's ligation and severing the vein a number of times. Also what is the best treatment for phleboliths. The patient is very susceptible to iodine.

We regret that you present such limited clinical data. Varices are rarely seen in the locality you mention, and we cannot quite understand what should cause such a condition in so young a single woman. Were we more familiar with the nature of the spinal deformity and had we some knowledge of circulatory conditions, we might be able to explain the phenomenon. We suggest that you have the blood pressure tested.

As you are well aware, a number of etiologic factors contribute to the development of varicosities, but, unless an inflammatory condition has existed or a congenital thinness of the walls of the veins and insufficiency of the valves obtains, we should hardly expect to find varicosities about the buttocks and thighs of an individual of this age. You do not mention any history of trauma. Before any operation is done, we should advise that you familiarize yourself as fully as possible with the internal abdominal and pelvic conditions. The urine should be examined and heart-sounds carefully noted. If the varicose condition is not very pronounced and the veins assume a normal appearance when the patient lies down, we should hesitate to operate. You must also ascertain whether the deep veins are involved, or the superficial only. Is there any edema whatever, or does the patient complain of muscular contractions and neuralgic pains? If the varicosities have appeared lately, search for a tumor.

In varicose veins of the extremities a thorough resection of the diseased veins or ligation and resection of the long saphenous vein at the saphenous opening is recommended. Mayo has devised an instrument, called a "vein-stripper," which permits of the subcutaneous removal of the greater part of the varicosed vessel. The vein is exposed through a transverse incision, cut, ligated, and threaded upon the instrument. It is then separated from the tissues and the collaterals are broken by forcing the stripper along the vein. Another incision is made over the end of the instrument, the distal portion of the vein ligated and the separated part removed. Such an operation should be performed only by a thoroughly competent surgeon, while the patient demands careful nursing and constant attention for at least two weeks thereafter.

Phleboliths rarely form in the vessels of individuals under fifty years of age. If they are small and do not cause annoyance or disturbance of the blood stream, they may be left alone. As a true phlebolith is a calcified thrombus, it is practically impossible, of course, to influence it by medication or local treatment. The concretion must be removed together with a small portion of the varicosed vein. Should you desire to study the subject further, see any of the larger modern works upon surgery. If, however, we can answer any specific question, do not hesitate to write again.

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QUERY 5757.—An Extraordinary Case of Typhoid Carrier. H. M. M., Kansas, recently forwarded to our pathologist a specimen of bile which he thought promised to show a very interesting condition. The specimen, he informs us, "was secured from a lady operated upon for gallstones about eight years ago, but the wound never healed, and about two months after the operation she had typhoid fever. Since that time she has been in good health. One day this past summer she entertained some twenty or twenty-two ladies, and every one of them had typhoid fever, caused, as I believe, by eating pressed chicken at her table. We have a reason for believing that the chicken was infected from the bile coming from this patient. It is also thought this woman is throwing off typhoid bacilli in almost pure culture. It is such an important case that verification by you is desired."

The report of our pathologist has fully verified our correspondent's suspicion. The bacillus typhosus was found in enormous numbers, being practically a "pure culture" (one-fourth of the bile-material). This is unquestionably one of the most remark-

able cases that has come under our observation.

Do we understand that the twenty-two guests contracted typhoid fever subsequent to partaking of a chicken dinner at the patient's home at the same time? Under any circumstances it would seem that several chickens would have to be infected, and we should like to learn just how they gained access to the bacteria-carrying. agent. At the present time your patient is about as dangerous in the community as a bunch of healthy rattlesnakes. It would be interesting to investigate other cases of typhoid fever that may have occurred in the neighborhood during the past five years, and we await with much interest your further report.

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QUERY 5758.—"Arteriosclerosis. Atheroma." W. H. L., Ontario, believes that by giving the symptoms and characteristics of arteriosclerosis, and differentiating it from atheroma, we should aid many of our subscribers.

As a matter of fact, the majority of writers have used the terms "atheroma" and "arteriosclerosis" interchangeably, and most medical men speak of an atheromatous or arteriosclerotic condition as if they were the same. This, however, is a mistake.

Atheroma is differently defined in the various dictionaries. Perhaps the best definition appears in the Century Dictionary, which describes this condition as "the formation of thickening patches on the inner coat of an artery (more rarely of a vein), constituting cavities which contain a pasty mass exhibiting fat globules, fatty-acid crystals, cholesterin, more or less calcareous matter, etc., the endothelial film separating this from the blood and the atheromatous ulcer formed."

The derivation of the term "atheroma" is from a Greek word meaning "gruel." It is evident that the term as commonly used, to designate a hardening of the arteries, is employed in quite a different sense from the original.

It has grown to be the custom in recent years to designate by the word "atheroma" most of the changes in the lining of arteries which can be distinguished with the unaided eye, including abscesses, ulcers, thickened patches, and calcareous deposits. In short, practically every disorder of the lining of the blood-vessels which can be detected without the microscope.

Dieulafoy, in his recently published "Textbook of Medicine," under the head of "Toxic Arteritis, Atheroma, Arteriosclerosis," groups all arterial lesions consecutive to pathogenic agents, to their toxins, and to vegetable or mineral poisons. He says that when an artery is affected by endoperiarteritis which diminishes its caliber and changes it into a fibrous tube, arteriosclerosis is present. If the tunica intima is affected, but only in the layers subjacent to the endothelium, with the formation of yellowish, cuplike patches filled with a fat pulp, we have atheroma to deal with. If the fluid and fatty matters are reabsorbed, then the lime salts alone remain, and the patch assumes a rigid consistency, while such atheromatous centers existing in great numbers in the same vessel finally fuse and give to the artery, or a large portion thereof, a cartilaginous or ossiform rigidity. This condition has been spoken of as "ossification of the arteries," though the term is not a correct one.

When the whole arterial system is invaded, atheroma chiefly affects the large arteries, while arteriosclerosis develops by preference in the visceral arterioles. Two changes in the vessel are produced by arteriosclerosis: (1) periarterial inflammation, which proceeds by foci in the centers of which a diseased artery is found (inflammatory sclerosis); (2) a lesion of degeneration in which sclerotic foci are formed at a long distance from the diseased vessel. Sometimes these changes are found side by side. (Mixed sclerosis.)

Of the symptoms of atheroma and arteriosclerosis, some are due to the arterial lesions themselves, others to the visceral changes which they produce. Among the former may be cited the rigid character of the arteries, the increase of arterial tension, the tortuous course of the arteries, the second heart sound, which is accentuated and which has a ringing character, and the frequency of purpura and gangrene of the extremities. Among the troubles

due to visceral changes are vertigo, hemiplegia, aphasia, loss of memory, failing intelligence or complete dementia. In some patients the heart is chiefly affected, and we shall note palpitation, cardiac hypertrophy, angina pectoris, and paroxysmal dyspnea. Again, patients will complain of loss of appetite and of indigestion. In not a few cases renal changes call attention to conditions, insufficiency of urinary depuration and the various symptoms of Brightism indicating frequently the existence of a sclerosis.

The treatment of atheroma and of arteriosclerosis is practically identical. Remedies lowering the arterial tension should be exhibited, together with the iodides or iodine in some form. It is frequently desirable to place the patient upon a milk diet.

For further information upon this subject, upon which volumes and volumes have been written, we refer to Meig's "Human Blood-Vessels." or any modern work upon diseases of the circulatory system.

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QUERY 5759.—"Compatibility of Calx Iodata." B. M. W., Pennsylvania, wishes to know whether calcidin is "as compatible as potassium iodide? Can it be combined with tincture of lobelia, compound syrup of sarsaparilla, or with ammonium carbonate or chloride?"

Calcidin, like potassium iodide, is compatible with syrup of sarsaparilla and also with ammonium chloride. The addition of ammonium carbonate would cause a precipitation of calcium carbonate. It would not be advisable to combine tincture of lobelia with calcidin. The alkaloid lobeline would unquestionably be precipitated.

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QUERY 5760.—"Pyelitis and Chyluria." W. C., Texas., has, as he writes, a case of pyelitis or chyluria. The patient's urine is milky. The patient has been treated by several doctors. He asks whether we can suggest anything to put him on the right track.

There is a vast difference between pyelitis and chyluria. The treatment which would prove effective in one disease would be detrimental in the other. We, therefore, suggest, Doctor, that you send a 4-ounce specimen of urine to our pathologist. It might be well, also , to send a blood smear. Examine the patient (who perhaps harbors the filaria sanguinis hominis) carefully and report conditions fully.

It must be remembered that chyluria is intermittent in appearance, especially in the parasitic varieties. Pyuria is also sometimes intermittent, the urine usually being acid, unless a cystitis also obtains, when the presence of pus-corpuscles is readily revealed by the microscope. In chyluria we do not find pus, but sometimes albumin, fibrin, and fat.

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QUERY 5761.—"Aconitine." S., Iowa, wishes to be informed in regard to aconitine. He asks: "Can it be given safely as long as a patient has fever, say 102° F., and over? I am using the granules, in connection with other treatment, every three hours, as one dose of aconitine is entirely eliminated within that time. The patient is a man suffering with pneumonia, and I am unable to bring the temperature down to anywhere near normal. Can aconitine be used for an adult according to Shaller's rule, using enough granules dissolved in 24 teaspoonfuls of water so that each teaspoonful would contain a single dose?

We have taken pleasure in mailing our correspondent a pamphlet descriptive of aconitine, which will, we think, give him the information he desires.

It is not advisable to give aconitine at three-hour intervals. The digestive tract should be cleansed, obvious symptoms met with indicated remedies, and aconitine exhibited every thirty to sixty minutes to effect, remedial or physiological; i. e., until the fever falls and the skin becomes moist or evidences of aconitine-sufficiency (numbness of tongue and pharynx, etc.) are noticeable. It is useless to give aconitine and leave the intestinal canal full of toxin-producing material. In every case it is essential to clean out and keep clean; the skin should be kept active by the use of warm epsom-salt sponge-baths, and the toilet of the mouth and nose must receive attention.

Aconitine is, of course, soluble. In many instances it is desirable to use aconitine in combination with digitalis and strychnine; or aconitine, digitalin, and veratrine may be exhibited together, according as the situation may suggest.

Aconitine should not be held in the mouth. If a granule is retained on the tongue, a peculiar numbness will be felt at the point of contact; when air is drawn into the mouth a sensation of coolness is experienced.

A granule of aconitine taken half hourly in health or when not indicated in disease, for four or five doses, will usually cause a decided feeling of heat in the epigastrium. Larger doses, or small doses too frequently repeated, may cause a tingling in the fingers and toes, then in the hands and feet, and finally over the whole body. This tingling is one of the first physiologic manifestations of aconitine-sufficiency. In acute inflammatory diseases such tingling or numbness is not experienced until the remedy has gained control of the condition.

It is not desirable that one dose of aconitine should be entirely eliminated before the next dose is exhibited. It is impossible to produce a systemic effect in this way, as one should.

Shaller's rule applies particularly to aconitine, and we do not hesitate to give an adult one granule half-hourly or hourly to effect. Very young children may receive the weak dilution, i. e., one granule of aconitine for each year of the child's age in 24 teaspoonfuls of water; but if the patient is over 5 years of age, 1-12 of a granule is, in our estimation, the smallest effective dose.

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Query 5762.—"What is Erlenmeyer's Mixture?" A correspondent, V. G. A., Illinois, asks this question, and as others may encounter this name in their literature, the inquiry is timely.

Erlenmeyer was a famous German psychiatrist, and the mixture named after him is that well-known sedative for nervous conditions, especially epilepsy, containing, in equal parts, the three bromides of potassium, sodium, and ammonium, and usually combined with a bitter tonic like gentian.

Many of the extensively advertised antiepileptic nostrums—notably, in this country, "Father John's medicine"—are reputed to be essentially of this composition.

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Query 5762.—"A Puzzling Abdominal Growth." G. W. C., Missouri, describes a rather unusual and decidedly interesting condition observed in one of his female patients.

Patient, a woman 28 years old, mother of three children, says that when she was married there was a small "ridge around her belly at the navel" the size of her finger; this has grown till it is now 2½ or 3 inches thick at the umbilicus; the latter full and 1½ inches across, very tender and blue, as if bruised. This flap is 2 inches thick and hangs down so you cannot see the pubes unless it is raised up. There seems to be a large, sore mass just behind the navel, and connected therewith. This has gradually grown, but never caused inconvenience till of late. The patient is bothered with "menorrhagia" every two or three weeks for four or five months. The growth is not the abdominal muscles stretched or distended; it is simply a flap which starts from, say, 1½ inches below the umbilicus.

We regret to say that we cannot arrive at a definite diagnosis, even with the assistance of your pen-and-ink sketch. The mass you speak of as being behind the umbilicus may be of serious import. The flap itself is a peculiar abnormality. We are inclined to think that you have to deal with one of two conditions: (1) a lipoma which has undergone more or less degeneration, the mass behind the umbilicus being the original tumor and the "apron" of an angiomatous character; (2) an original umbilical hernia, with increasing omental protrusion. Under the circumstances, a plastic operation would seem to be indicated. Should you have to deal with an angioma of lipomatous origin, the operation might be a serious matter. A simple lipoma can, of course, be easily removed by an operation.

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